SCIENTIFIC RESEARCH OF THE SCO COUNTRIES: SYNERGY AND INTEGRATION

上合组织国家的科学研究：协同和一体化

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CONTENT

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在«俄罗斯电信集团»公司中的偏远工作地点的组织

ORGANIZATION OF REMOTE WORKING PLACES IN THE COMPANY «TELEPERFORMANCE RUSSIA GROUP»

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抽象的。 当前的流行病学危机引起了关于在外国和俄罗斯公司中组织偏远工作地点这一话题的讨论。 本文通过对其员工的调查，介绍了作者对“俄罗斯电信集团”中远程工作组织的研究结果。 考虑了选择远程工作方式的工人适应的关键问题。 为组织和公司的管理制定了建议，旨在合理化和优化远程工作者的适应过程。 在准备本文时，使用了参考文献列表中给出的个别科学家和研究人员的建议。

关键词：远程工作，流行病学挑战，社会距离，生活方式的灵活性，企业文化，孤独和孤立。

Abstract. *The current epidemiological crisis has caused a stir in the discussion of the topic of organizing remote work places in both foreign and Russian companies. The article presents the results of the author's research on the organization of remote work in the "Teleperformance Russia Group" based on a survey of its employees. The key problems of adaptation of workers who have chosen a remote mode of work are considered. Recommendations are formulated for the management of organizations and companies aimed at rationalizing and optimizing the adaptation processes of remote workers. In preparing the article, the recommendations of individual scientists, researchers, given in the list of references, were used.*

Keywords: *remote work, epidemiological challenge, social distancing, lifestyle flexibility, corporate culture, loneliness and isolation.*

Remote work is increasingly in the spotlight due to the coronavirus pandemic [1].

The epidemiological challenge of 2020 posed the most urgent task for the global labor market - to quickly make a large-scale transition from the traditional format of full-time employment in the workplace to the format of remote work of organizations in almost all spheres of activity, regardless of their readiness to operate remotely and the rationality of the implementation of this practice. [4.5].

Governments seeking to control the spread of the disease have adopted social distancing measures to minimize unnecessary contact between people, including when traveling to and from work. This means there are millions of people working remotely who have never done so before. In Russia, such actions solve a number of problems of the development of the domestic labor market and regional differentiation in the level of economic activity and the level of unemployment of the population [2, 3].

According to experts, worldwide, more than 50% of employees currently work remotely at least once a week. And although this indicator varies in different countries, it is a phenomenon that is constantly evolving and transforming that, some authors note how we work [6, 9,11].

Benefits, problems and organization of remote work. According to the results of the study conducted by the authors of the transition of employees of the Teleperformance Russia Group to a remote mode of work, it was found that there are many advantages for remote work for both employees and employers. Let's list the most important ones.

So, for employees:

– *Flexible lifestyle.* The most obvious reason people want to work remotely is because it offers them a more flexible lifestyle. When they are not required to be in the office for a certain amount of time, remote workers can focus on what matters to them outside the office. If the teleworker is also a parent, they have the option to start work the day before so they can be present when the children return home from school, or take a day off during the day to visit the doctor.

– *Better health and wellness.* Telecommuters are significantly less stressed and have higher morale than their office counterparts. A report published by the Royal Society of Public Health UK found that 55% of participants felt more stressed from commuting. By eliminating the need to commute to work and allowing remote workers to work in a comfortable environment, employers are caring for employees who are less stressed.

– *Renewed passion for their work.* Telecommuters tend to work best outside the office. They are more inspired by their surroundings and can filter out distractions as they see fit. In fact, the ability to work remotely alone opens up new perspectives for telecommuting. They see this as a motivation or reward for their excellent work, and they are encouraged to continue to exceed their goals in order to continue living the way they used to.

– *Protecting the environment (using both personal and public transport when traveling to work, flying to conferences, etc.).* Transport is the largest source of carbon dioxide emissions. And business travel, whether traveling to work or flying to a conference, contributes to these emissions. By eliminating commuting and encouraging video conferencing, telecommuting can be an effective way to reduce a company's carbon footprint.

There are also benefits for employers:

– *Increase productivity through flexibility.* Telecommuters are more likely to put extra effort in their work, doing their best to get their jobs done, compared to office workers.

– *Cost savings by reducing overheads saved on costs such as rent and office furniture.* Remote employees are also important to a company's bottom line. If the team is fully dispersed, companies can see a reduction in overhead costs at the expense of money saved on costs such as rent and office furniture.

– *Increasing employee engagement within the framework of their position.* In addition to profit margins and better and more efficient performance, employers offer remote work opportunities to keep their employees happy and engaged.

– *Expansion of the talent pool due to the geography of attracting talent and creating – a truly diverse workforce.* Geography is not a barrier to attracting talent and creating a truly diverse workforce.

– *Ensuring business continuity.* The coronavirus pandemic has highlighted the importance of being able to work remotely. If people can carry out their tasks from home or elsewhere, businesses can continue to function even if something happens to their premises or people cannot come to work for any reason.

However, there are a number of problems with remote work. While some employers prefer to work remotely and offer their employees the opportunity to work from home – or even work completely remotely, without a physical location – others believe that having employees in the office is the key to success [7, 8].

Many companies have benefited from the adoption of teleworking in their organizations, but this option has its drawbacks as well. Some of these problems can have extremely negative business impacts.

Based on the results of the author's research, the following problems were identified that employees and employers may face when it comes to remote work:

– the difficulty of establishing a corporate culture, as a focused culture is essential to business success;

– geographic separation reduces the level of communication, as remote workers can quickly feel unaware of what is happening in their organization;

– loneliness and isolation reduces engagement and productivity;

– the absence of a specific boundary between work and home can lead to distractions, from interrupting work by children to doing household chores during work hours;

– the lack of emphasis by companies on creating a creative culture in which employees feel empowered to share ideas and where technology allows them to do so, no matter where they work; lack of opportunities for communication.

Having considered the problems and advantages of this form of employment, it is necessary to understand how to provide yourself with a comfortable workplace outside the office. For this, as noted earlier [10], it is necessary, first of all, to find an optimal workplace; establish a schedule that would provide flexibility as to when workers perform tasks when they work remotely; it is important to establish some boundaries that ensure workers get work done within a reasonable time frame and do not cause stress by spilling over into other areas of life; take breaks (for lunch, for rest, etc.), which has a positive effect on the health of a remote worker; Pay more attention to communication using instant messaging and group chat to stay up-to-date with colleagues and projects; companies provide their remote workers with the necessary equipment to carry out their work, be it laptops, computers, tablets or smartphones; clearly articulate the main roles and responsibilities of remote workers by the employer; in conditions when the team is not in the office, their responsibilities become even more uncertain.

Below is an assessment of the organization of remote work in the "Teleperformance Russia Group" company based on the results of a sociological survey conducted by the authors of the article.

"Teleperformance" — is a flexible business services partner that companies need in this digital world. The company is engaged in customer acquisition, service, technical support, debt collection, social media and other services around the world. The main task of Teleperformance is to help brands build competent and long-term communication with consumers.

Teleperformance Russia Group operates in accordance with international standards: it is the only company in Russia that has received the international SORS quality standards certificate.

In order to determine whether Teleperformance Russia Group effectively organized remote employment, a survey was conducted among 21 employees of this company.

The results of this survey are as follows.

To the first question "Choose what best describes your work regime at home", the interviewed company employees gave the following answers:

– 11 people answered that they work according to the same schedule as in the office;

– 4 people answered that they work the same number of hours, but the distribution of the working day has changed;

– 2 persons answered that they regularly get up from their place of work;

– 4 people responded that they take breaks at set times.

To the second question “How efficiently can you concentrate while working from home? (0 = I can’t concentrate at all, 10 = I work very effectively) the interviewed employees of the company gave the following answers: as a result of the received 21 answers, the average score is 6.76 out of 10.

Thus, the following conclusions can be drawn from the first two questions asked:

– The first question helps to understand whether the working regime of the employees of the Teleperformance Russia Group has changed. The results show that the prevailing answer "I work according to the same schedule as in the office", this suggests that being busy at home did not affect the working regime and the schedule in general.

– The second question is one of the key ones, since it is rather difficult to concentrate at home, and this directly affects labor productivity. But according to the results, we see that the average score is 6.76 out of 10, and this is quite a good result. Consequently, company employees can concentrate even in a relaxing environment.

The third question "Compare your work from home and office" aims to compare two places of work of the employees of the "Teleperformance Russia Group" company. The types of work were highlighted: individual work, informal communication with colleagues and creative thinking. According to the results of the survey, it was found that it is easier for employees to do individual work at home, which cannot be said about communicating with colleagues. Company employees prefer to communicate in the office rather than through social networks. Employees have the same creative thinking, regardless of location.

The fourth question “How much do you agree with the following statements?” Helps to define in more detail the views of workers on the new conditions of employment. The respondents were asked the following questions: "To what extent does your workplace at home (chair, lighting, ergonomics) allow you to work productively?", "Do you feel connected with your team when working from home?", "Do you feel isolated from colleagues when working from at home?", "Where are you most distracted when working from home or in the office?"

Based on the results of the survey, the following conclusions were made. The equipment provided by the company suits most of the employees. It is also important to note that the team does not lose touch with each other. Most workers do not feel isolated working from home - this is a very good indicator, it means that workers will not lose their productivity due to emotional state. Also, workers noted that the number of distractions at home does not exceed office ones. This can be explained by the fact that at home, distractions can be close people and animals, and in the office, colleagues sitting next to you (in Teleperformance Russia Group, employees' desks are located very close to each other).

And the final question "What would you choose" helps us to understand where it is more convenient for people to work. The results showed that people prefer to work from home, and there are explanations for this. People don't need to spend a lot of time on the road. The time that they usually spent on the road, they can send, for example, to sleep or a morning run, which will help to cheer up before the work day. Also, a cozy and comfortable environment plays an important role. And it is also worth noting the saving of money for snacks, public transport, excess gasoline, which burns out very quickly in daily traffic jams.

Conclusion

The pandemic has accelerated the growth of teleworking in organizations. This has tangible benefits: companies can save on real estate costs, recruit and leverage talent around the world, mitigate immigration concerns and experience increased productivity, while workers can enjoy geographic location, flexible lifestyles and wellness. But don't forget about the problems that can arise as a result of remote employment. This is mainly the lack of personal interaction with colleagues.

The guidelines for organizing a remote location are pretty simple. It is necessary to provide yourself with a comfortable workplace, with sufficient lighting and the ability to work in silence, as well as comfortable furniture. Make sure to take regular breaks and schedule the tasks that need to be completed – this will help people get the job done within a reasonable time frame and will not cause stress.

Having considered the organization of remote employment in the Teleperformance Russian Group, as well as having learned the personal opinion of the employees of this company, we can conclude that, despite the sharp transition to remote employment, the company coped well with the organization of remote workplaces. The company provided all the necessary equipment for comfortable and productive work, created a platform for maintaining communication with colleagues and for holding all the necessary daily meetings. The company also prepared all the necessary documents for the transition to remote employment, such as: security documents, which contained rules for the use of confidential information, as well as agreements for the transition to remote employment in general. It is worth noting the creation of another platform that helped employers track the presence of an employee at their workplace. It is very convenient for both the employer and the employee. The employee will be more responsible in their work thanks to this platform.

Based on the results of the study and the survey of the company's employees, it can be concluded that the employees are satisfied with the work done by the company, that is, with the equipment provided, the opportunity to communicate with colleagues from home and support. Most workers prefer to work from home, and the survey found that the productivity of workers does not change as a result of teleworking. Employees generally see some advantages in remote employment:

saving time and money, a comfortable environment, but there is one significant disadvantage for them - communication. They lack personal and tactile communication with colleagues and it is obvious that no platform can replace it. But you can adapt to everything, which means that in the future this will no longer be a significant problem.

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数字海关技术的比较分析

COMPARATIVE ANALYSIS OF DIGITAL CUSTOMS TECHNOLOGIES

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抽象的。　本文介绍了数字海关技术的比较分析结果，以阐明海关当局在关键流程转变方面的发展特征。 分析和综合方法的应用使在俄罗斯联邦海关当局中识别和描述数字化问题成为可能。 所得结果可用于参与外国经济活动的海关当局和企业的活动，以预测主要和经济活动的结果，以及进行科学研究。

关键字：技术，数字海关，数字经济，海关当局

Abstract. *The article presents the results of a comparative analysis of digital customs technologies in order to clarify the features of the development of customs authorities in terms of the transformation of their key processes. The application of methods of analysis and synthesis made it possible to identify and describe the problems of digitalization in the customs authorities of the Russian Federation. The results obtained can be used in the activities of customs authorities and enterprises participating in foreign economic activity in predicting the results of main and economic activities, as well as in conducting scientific research.*

Keywords: *technology, digital customs, digital economy, customs authorities*

The term "digital customs" was introduced by the World Customs Organization in 2016. From now on, customs authorities should actively demonstrate the use of information and communication technologies in order to collect and ensure the payment of customs duties, control the movement of goods, people, vehicles and funds, as well as to ensure the security of cross-border trade. Russian customs authorities are introducing digital technologies that have been able to successfully prove themselves abroad, which have been recommended for use by the World Customs Organization [6]. Let us consider how the Russian experience in implementing digital customs technologies differs from the leading international experience on the example of electronic declaration, preliminary notification and auto-registration, and auto-release.

1.Electronic declaration. The world leader in the development and application of electronic declaration, as well as the development of the digital economy, is undoubtedly the United States of America (USA). Back in 1984, the United States began to implement the system of automation of customs clearance and control processes ACS (*Automated Commercial System*), which was basically completed by the mid-90s of the last century. It was during its creation that the basic principles of electronic declaration were formulated [3]. The following data show the size of the automation of US customs activities: the AGS system includes 200 subsystems, 800 different databases, 3200 programs. Over the year, 18 million import declarations are processed in electronic form, which is 98% of all completed declarations in the country. The system's subscribers are customs brokers, carriers (sea, rail; air, road), banks, federal regulatory authorities, the Ministry of Commerce, etc. One of the main functions of ACS is to analyze received documents in order to select cargo, i.e. definition of goods that, for one reason or another, are subject to customs inspection. At first, the system was focused on the introduction of technologies for the electronic declaration of goods transported by sea, which is most important for the United States, then it began to develop in relation to other modes of transport. In the United States, there is a legal framework for the electronic declaration of goods, i.e. Legislatively resolved the issue of the same responsibility for declaring, in whatever form it is organized: in electronic or paper (1–2% of goods are drawn up on paper) [1].

In Russia, electronic declaration has been mandatory since 2014. Since then, almost absolute electronic declaration has been provided in the Russian Federation (fig. 1).

Fig. 1. *Dynamics of the share of electronic declarations in their volume [4]*

One of the significant problems is the imperfection of operations related to the issues of electronic declaration. Since all customs formalities can be performed only during working hours, in the morning there is an accumulation of a significant array of declarations on the servers, which certainly leads to a slowdown in the performance of the information systems involved. At remote checkpoints, most often there is only satellite communication, there is a lack of information infrastructure, despite the fact that the flow of information increases annually. That is, despite the positive effect of the introduction and operation of electronic declaration in the activities of customs authorities, there are a number of problems, which include the following:

1. Incomplete consistency of the Unified Automated Information System (UAIS) of customs authorities and other information resources to modern requirements.

2. Lack of sufficient financial investments aimed at the development of information technology infrastructure used in customs, automation of new tasks controlled by the Federal Customs Service of Russia.

3. A small indicator of the unification of software and hardware that make up the information infrastructure of the customs services.

4. Errors in the formats of forms of electronic documents, which entails distortion and incomplete provision of information [5]

5. Failures in the operation of software and communication channels associated with the uneven coverage of the territory of the Russian Federation by high-speed communication channels [7].

For an immediate search and elimination of the identified problem points, the customs authorities should interact with all bodies exercising control functions involved in the scheme of movement of goods across the border of the Russian Federation, and conduct a dialogue with participants in foreign trade activities.

2. Preliminary information. Preliminary information has been actively introduced into the process of state control since the beginning of the XX century: after September 11, 2001, the issue of ensuring the security of international contacts has become relevant for every country. The United States was the first to use such technology in 2001 after the creation of the Customs and Trade Partnership Against Terrorism (C-TPAT) program.

In 2003, the World Customs Organization (hereinafter - WCO) developed the “Framework Systems of Standards for Security and Facilitation of Global Trade” (SAFE), which formed a three-tier structure of customs operations (advance notification, declaration, payment of payments) based on the principle of a single window.

For example, in the European Union, since January 1, 2011, a mandatory PI was introduced throughout the European Union (hereinafter referred to as the European Union, EU) and at present all foreign sea lines operate in this standard in accordance with UN CEFACT International Recommendations as an integral part of a single window. The customs legislation of the European Union stipulates that PI on the arrival/departure of goods before their import / export from the EU is considered in conjunction with the Risk Management System (hereinafter - RMS), built on uniform criteria for selecting risk areas for control activities (based on computerized systems).

In European, American and Asian single window systems, manual data processing is minimized thanks to the PI system - the information provided by the carrier goes to the RMS of the central customs authority, where, based on the automatic comparison of information with risk profiles, a decision is made on the level of control of goods in the seaport. The decision is automatically communicated to the customs inspectors at specific posts. For example, in the Dutch customs 92% of cargoes are marked "green corridor", 3% - "red corridor" (check for IDK is required) and 5% - “orange” - spot check for IDK [8].

In Russia, preliminary notification has become mandatory since 2018. Prior to the establishment of a mandatory PI of customs authorities at the level of the EAEU law, the Federal Customs Service of Russia presented an information system - KPS "Portal "Sea Port". At the same time, the trial operation showed that some refinement of the technology is necessary, since the solution of problems is important for the high-quality provision of public services [8]. Now the following problems are relevant for preliminary information in the Russian Federation: full-fledged interaction with the Rosselkhoznadzor authorities has not been established. Until now, other regulatory bodies do not actually work with the "Sea Port Portal"; there is no "connection" of the KPS of the "Portal Sea Port" with other KPS within the EAEU, that is, it works autonomously; there is no opportunity to manage risks, that is, the information received upon arrival of the goods cannot be analyzed by the customs authorities, on their basis no decisions are made to minimize risks; large time costs for entering information about imported goods, both from participants in foreign economic activity and from the side of customs authorities, the provision of information on prohibitions and restrictions in electronic form is not provided in response to information provided by the carrier about the arrival/departure of the vessel and cargo or the cargo owner about consignments from other regulatory authorities [2].

3. Auto registration / auto release. As an example, consider the experience of the United States. The system of customs clearance of goods in the United States is based on the principles of creating a complete electronic description of goods, i.e. computerization of information about the goods during their transportation from the point, loading overseas to the point of unloading and release in the United States. The whole point is that the electronic image of the goods is created in the Data Processing Center of the US Customs Service from data that is received from the carrier, broker, other government agencies, service services, banks, etc. and the declaration is also given there in electronic form, which is required in certain cases. It is there that a decision is made, which is brought to the attention of the checkpoints. It should be noted that the Data Processing Center is a kind of place for the formation of customs clearance of goods and, at the same time, for the main customs control [1].

In Russia, in recent years, the technology of automatic customs operations has been developing quite rapidly, as indicated by the data given in tab. 1.

Table1

Results of application of auto-registration/auto-release [4]

Indicator\year	2017	2018	2019	2020
The number of diesel fuel that were registered automatically, mln.	0.96	1.8	2.8	3.8
The number of DT automatically produced, mln.	0.084	0.32	0.64	1.08
Share of automatically issued electronic declarations filed by low-risk foreign trade participants for exported goods,%	28.2	46.9	75.9	93.7
Share of automatically issued electronic declarations filed by low-risk foreign trade participants for imported goods,%	7.3	26.6	57.3	86

The active use of information systems for auto-registration and auto-release creates additional risks. These systems can increase the risk of evading customs duties. The transition to the exchange of commercial information in electronic form, gaining automatic access to the information resources of state bodies requires an increase in the degree of protection of information resources, an increase in the range of measures to ensure information security. In order to counteract the violation of customs legislation, it is necessary to increase the efficiency of the application of the elements of the risk management system.

The results of the systematization of the key provisions of the comparative analysis of digital customs technologies are presented in tab. 2.

Table 2

Comparative analysis of digital customs technologies

Technology	Russian practice	Foreign experience
Electronic declaration	Electronic declaration is mandatory since 2014. Topical problems of the quality of information systems	Long-term experience of using electronic declaration systems
Advance informing	The "Single Window" mechanism is partially implemented	Implementation under the "Single Window" mechanism
Auto registration/ auto release	Application of technologies to participants in foreign economic activity of a low risk category for two customs procedures	High level of automation of customs operations

Thus, based on a comparison of the leading international practice and Russian experience in matters of electronic declaration, preliminary notification and auto-registration/auto-release, it can be concluded that the Russian customs authorities, despite significant success in these areas, are in some way lagging behind their leading foreign colleagues. Bridging the gap between best practice and the current performance of Russian customs authorities is an urgent task at the present time.

In general, it is important to emphasize that today the customs authorities of the Russian Federation use various modern digital technologies. Among them, it is worth highlighting: automatic registration and release, preliminary notification, electronic declaration, remote release of goods, RMS. The Federal Customs Service of the Russian Federation in every possible way contributes to the increasing introduction of information technologies in its activities, as this helps to reduce the time for performing customs operations and the process of performing customs control. However, despite the complexity and a number of problems associated with the introduction of promising information customs technologies, the FCS can be confidently called one of the most technologically advanced and technically equipped services in Russia.

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后殖民经济中的社会经济问题：现实与未来发展
SOCIO-ECONOMIC PROBLEMS IN POST-COVID ECONOMY: REALITY AND FUTURE DEVELOPMENTS

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本文探讨了流行性大流行对俄罗斯经济发展的影响的主题问题。 在科学家的研究以及各种专家评估的基础上，分析了与冠状病毒危机相关的社会经济后果。 俄罗斯的特点是其特点，揭示了政府为稳定该国的社会经济进程所采取的措施。 该研究的主题是大流行对俄罗斯经济的影响所引起的社会经济问题。 这项工作的目的是分析社会经济问题，并在政府措施的帮助下确定防止社会经济损失的可能性。

关键词：大流行，共生，冠状病毒，社会，经济，社会经济后果

Abstract. *The article examines topical issues of the impact of the covid pandemic on the economic development of Russia. The socio-economic consequences associated with the coronavirus crisis are analyzed on the basis of research by scientists, as well as various expert assessments. The peculiarities of the state of Russia are characterized, the measures used by the government to stabilize the socio-economic processes in the country are revealed. The subject of the research is the socio-economic problems arising from the impact of the pandemic on the Russian economy. The aim of the work is to analyze socio-economic problems and determine the possibilities of preventing socio-economic losses with the help of government measures.*

Keywords*: pandemic, covid, coronavirus, society, economy, socio-economic consequences.*

Maintaining the socio-economic sustainable development of society is the most important task of the state, since it creates the basis for a balanced economy of the country and strengthening its competitive advantages in the world market.

The object of the research is the economy in the post-like period.

The subject of the research is the socio-economic problems of society associated with the pandemic.

The purpose of the work is to analyze socio-economic problems in the era of a pandemic, to prevent further losses with the help of government measures in Russia, which determines the timeliness and relevance of the study.

The main tasks are related to the characterization and assessment of the consequences of the pandemic on the development of the socio-economic sphere of the country, the formation of directions for countering the destructive processes in the economy and society, and the choice of priorities.

Today it is obvious that a covid epidemic is having devastating consequences both for Russia and for the world economy as a whole. Experts predict a decline in GDP in the near future, which will further worsen, in their opinion, the socio-economic situation in the country [1].

First of all, we note that the coronavirus has certain features. The crisis situation was predicted more than fifteen years ago. The current economic crisis in Russia and the world is unfolding against the background of a structural transition to a new world economic order. Obviously, the current transition differs from the previous one in the technological support of this process, which contributes not only to the emergence of new risks and opens up new opportunities for development. More details about the features of the transformational structural crisis caused by the change in the world economic order and about the impact of the process on the Russian economy are considered in the fundamental scientific work of S. Glazyev "Leap into the future. Russia in new technological and world economic structures"[2].

Surveys conducted by the Romir and Gallup International research centers indicate that due to the shutdown of enterprises caused by the outbreak of COVID-19, 12% of Russian citizens lost their jobs by the end of April 2020, 30% of respondents stated that they were transferred to a part-time worker day, and 32% were forced to go on unpaid leave. At the same time, according to experts, more than a third of the population has lost a significant part of their income [3].

With all the negative consequences, the modern era provides unique opportunities to strengthen its position in the market. Those who develop solutions using new technologies continue to work quickly and safely, providing financial flexibility, reducing the technology costs of businesses during a pandemic.

The influence of high technology is also noticeable in everyday life. Thus, one can observe a sharp change in attitudes towards the use of such applications as "Zoom", "Slack", "Microsoft'sTeams" and others. They have become common tools for millions of people in both personal and corporate communications.

From our point of view, one should not exaggerate the role of technology, underestimating the importance of social factors - there is a person behind every action, decision, achievement. However, there is debate about the economy based on artificial intelligence, since the issue is not as simple as some seem.

With the help of government measures, it is possible to achieve a significant improvement in the economy in a country that has found itself in a protracted recession due to the introduction of bans due to the epidemic. Practice shows that the revival of trading activity after the lifting of restrictions after the first wave of the pandemic contributes to the return of buyers and sellers to the market, stabilizing demand. However, as evidenced by the current situation, government financial support is more beneficial to large enterprises with a larger capitalization, and many small owners continue to go bankrupt.

Meanwhile, the opportunity to get out of the crisis can also stimulate small entrepreneurs with flexibility. It can be seen that while large grocery retailers are trying to clean up the living lines of disgruntled shoppers, small local restaurants are quickly turning into retailers, redirecting their strategy to sell products to end consumers.

Clearly, in an environment of increased volatility, the combination of scalability and flexibility will inevitably lead to short- to medium-term business success, large or small. However, changes in the long term need to be more fundamental [4]. Resilience combined with flexibility should become the main principles of business leaders' activities, helping the company, industry, country out of the current crisis, making up for pandemic losses.

It is believed that despite the support measures taken by the government (a six-month deferral for all taxes excluding VAT, a 2-fold reduction in insurance premiums, from 30 to 15%, the minimum wage for workers who have lost income, etc.), are insufficient to prevent further consequences. coronavirus crisis, which may be more serious than after the first strike of the pandemic in the spring of 2020 [5].

As practice has shown, the socio-economic measures of the government for Russians turned out to be real support. The downturn in the Russian economy due to the pandemic is less significant than experts predicted, the situation in the country is not as critical as predicted.

Against the background of a seven-year period of stagnation, accompanied by a decline in the level of well-being of the population, Russia faced two huge problems at once: the coronavirus pandemic that gripped the world, and the global economic crisis. The latter provoked the collapse of world prices for hydrocarbons and fuel more than twice. The current crisis is characterized by three main parameters: rising inflation; loss of working days; falling prices and demand for Russian export goods, of which 90% are raw materials and semi-raw materials [6].

It should be noted that inflation may exceed the level set in the federal budget, given the growing domestic prices due to the fall in GDP and the ruble exchange rate, but, on the other hand, inflation growth may be restrained by the fall in consumer demand.

As you know, according to the requirements of the President of the Russian Federation, the provision of "non-working days" during the period of April-May self-isolation at the place of residence was carried out subject to the preservation of jobs and incomes of citizens, which played a positive role.

The Russian economy was affected not only by the pandemic, but also by the state of the world economy due to covid, which provoked a drop in demand for Russian raw materials. But this can be viewed as a temporary phenomenon.

According to the estimates of the Department of Labor and Employment in the Tyumen region, the tension on the labor market is increasing, unemployment is growing [7]. But, at the same time, the regional administration provides substantial targeted support to various groups of the population: families with children, businessmen, etc., which allows solving not only the tasks of the first necessity, but also saving the lives of people, which is the most significant.

As shown by a rapid survey of the population of Tyumen, conducted by the author at the end of 2020, a reduction is expected in almost every commercial organization of small business, and about 18% of employees of state organizations are warned about dismissal or transfer to part-time work. It is important to note that the state is taking measures to reduce tension in the labor market, stimulating hiring, but also measures to save human lives, which is a priority. This is what the majority of the respondents (over 60%) support and are ready to "endure".

The Russian government is taking unprecedented measures to mitigate the impact of the pandemic on people's quality of life.

Note that some researchers, in particular, the authors of the monograph “Society and Pandemic. Experience and Lessons of Combating COVID - 19 in Russia ”, a group of Russian scientists together with government experts assess the measures taken by the government as a whole positively. Despite the fact that the amount of support is less than in most developed countries (it is only 2.7% of GNP), a large share of aid falls not on state guarantees, but on real subsidies, the authors state [8]. Scientists from HSE University, Lomonosow MSU, Plekhanov Russian University of Economics, FRIMF of the RF, VTsIOM took part in the work.

Obviously, in the context of the outbreak of a pandemic, the role of the state increases, since contradictions are aggravated, primarily in the economic and social spheres, and only the state can take on the solution of these problems, when the state, public structures, social groups, civil society institutions work in the same direction complementing each other and building on each other. This is a basic problem not only for our country, but for the entire world community.

However, it is trust that is the key resource in the era of the modern crisis, which is characterized as systemic, believes the First Deputy Prime Minister of Russia A. Belousov [9]. Precisely because the global crisis is acquiring a systemic character, trust is becoming a key resource for an effective state. Because the effectiveness of the state and state institutions is based on the trust of the population, various social groups in society.

According to S. Glazyev, it is extremely important for Russia to get out of the wreckage of the old world economic order, in which the country found itself after the destruction of the USSR. This is possible through the formation of institutions of a new order and the implementation of a new socio-economic policy of advanced development on an advanced technological basis. This policy presupposes strategic planning, deployment of public-private partnership mechanisms, and a joint public-private development program [2]. Regulation of the economy will not only stop the export of capital from the country, but will also contribute to its growth in the future, contributing to an increase in human capital. Such a policy will stimulate innovative activity in the country and make Russia the leader of a new world economic order without catastrophic socio-economic losses associated with the pandemic.

At the session "A Difficult Conversation about Economic Growth." On January 15, 2021, representatives of the Russian government discussed contemporary issues, including the role of the state in creating favorable conditions for the development of the economy [10].

Thus, the head of the Ministry of Finance A. Siluanov indicated that economic growth is only one of the tools, growth can be different: not always growth is able to create a long-term surplus product that ensures the well-being of citizens and their quality of life.

The Minister of Economic Development M. Reshetnikov noted that welfare is not just the income of the population. These are housing conditions, the quality of healthcare, the elimination of the digital divide, opportunities for self-realization. All of these areas are included in the national development goals outlined in July 2020, where the concepts of economic growth and well-being become "voluminous and complex".

An addition to this reasoning was made by W. Mau regarding the super-soft monetary policy, which generates an increase in inequality: those who have a large amount of assets start earning more, and not those who work better and more productively. Moreover, the owners of assets turn out to be incomparably richer than those who work for a salary.

The participants in the discussion unanimously recognized that investments will play a leading role in the development of both the economy as a whole and individual industries, but it is still not advisable to consider the state as a key investor.

Any crises give rise to the need to reform what needs improvement, as well as to carry out structural changes. This is what the government was doing along with the fight against the consequences of the pandemic. So, taxes in the oil sector have increased, in small business and IT - have decreased. The structure of expenses has changed: support is provided, first of all, to those who need it. Abolished many outdated regulations that hindered the normal development of business.

Many experts compare the coronavirus pandemic with a war, as they had to face many factors that are not directly related to economic laws. The financial crisis of 2008-2009 could have provoked the emergence of a new model of economic growth, but this did not happen, since almost all countries were engaged primarily in the elimination of the consequences of the crisis. As a result, it was quickly dealt with without radical reforms. The result is a decade with low inflation, low investment, rising inequality and insufficient economic growth.

At the time of the pandemic, we found ourselves in an extremely favorable macroeconomic situation: Russia has an unprecedentedly low public debt, low inflation, and relatively low unemployment. If the government manages to turn the economy in the right direction without disrupting these macroeconomic conditions, Russia has the prospects to enter the trajectory of sustainable growth. Moreover, at the level of citizens' expectations, and not just the growth of statistical indicators.

Today, against the background of aggravated political relations in the world arena, it is vitally important to make the country self-sufficient in all respects, get rid of dependence, gradually abandon dollar dependence, create its own electronic environment based on domestic developments, dependence on social networks. All these factors make the Russian economy vulnerable and pose a serious threat to the stabilization of socio-economic relations, regardless of the pandemic. It is important not to get stuck in post-lobe syndrome. It should be understood that Russia is a self-sufficient country, and it has everything for development and prosperity. Russia needs an economic growth that would lead to an increase in the welfare and quality of life of the population.

The time has come to correct the mistakes of the 90s, to make plans for the future (a political prerogative), in which Russia itself should take the central place. Some socio-economic problems lie on the surface and require urgent resolution. Companies bought up by foreign investors bring income not to Russia, but to other countries, and we, consumers, buying these products every day, support not our Russian economy, losing huge profits.

Russia should rely on the intellectualization of the economy through the development of education, and not on robotization and digitalization, based on the fact that in the economy of any country the main thing is a person, his quality of life, which is detailed in an article published by the author in 2019 [11].

It is impossible not to notice the positive tendencies in the fight against covid, and, consequently, in the stabilization of socio-economic relations. In the context of growing morbidity, falling real incomes, rising unemployment, the decisive factor for maintaining the socio-political stability of the country is the people's confidence in the authorities, the ability to rally around their state and its leaders.

The 2020-2021 pandemic demanded that the economy be sacrificed in order to save human lives, demonstrating to society that it should be the main thing in the perspective of the development of the entire human community. It is necessary to focus on solving social problems, thanks to which the economy will also be strengthened.

The most contradictory predictive assessments are expressed regarding the postcoid economy, there are different points of view, but Russia has its own path, its own choice, an orientation towards self-sufficiency while maintaining a balance in the world.

It seems that one should proceed from the values of the founder of economic sociology, academician TI Zaslavskaya, who said 14 years ago: "… I refer to the first set of values as“ moral balance with the world" [12], and, most likely, she was right.

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北极发展，北海航线经济现代化的体制机制
INSTITUTIONAL MECHANISMS FOR THE DEVELOPMENT OF THE ARCTIC, MODERNIZATION OF THE ECONOMY OF THE NORTHERN SEA ROUTE

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这篇文章的相关性是由于北极地区对俄罗斯具有重要意义，以及其他国家/地区的世界领导人对该地区的发展越来越感兴趣。近几十年来在俄罗斯进行的转型进程，旨在为有效利用北极潜力创造有利条件的社会经济和宪法法律改革的实施，目前尚无法使俄罗斯充分获得一切可能的利益。这项研究的方法论基础是将制度环境在北极经济发展中的作用的理论方法进行系统化。本文旨在分析北极发展的制度机制，并研究其他国家对北海航线经济现代化的影响。这项研究的科学成果包括在理论上论证了北极发展所需的体制机制，并考虑了所有利益相关者。这篇文章揭示了俄罗斯与北约在北极的政治对抗的特征，以及在考虑北极进一步战略发展时俄罗斯与非地区参与者之间的互动模式。这使我们能够确定俄罗斯与北极其他参与者的关系原则。在这项研究的基础上，制定了俄罗斯和西方国家继续发展合作的方向，其中最重要的要求是在国家间和全球范围内进行机构互动：自然保护和污染控制，安全性问题。导航和控制船舶对水域的污染，实现海洋基础设施现代化的投资过程的前景；开发和实施北海航线的潜力。文章特别注意了中国向北极地区渗透的方向。

关键词：北极战略，中国，制度环境，基础设施，现代化，北海航线，白皮书，石油生产，资源，投资。

Abstract. *The relevance of the article is due to the high significance of the Arctic region for Russia and the growing interest in its development among other countries-world leaders. The transformation processes taking place in Russia in recent decades, the implementation of socio-economic and constitutional-legal reforms aimed at creating favorable conditions for the effective implementation of the Arctic potential, do not currently allow the country to fully receive all possible benefits. The methodological basis of the research is the systematization of theoretical approaches to the role of the institutional environment in the economic* *development of the Arctic. The purpose of the article is to analyze the institutional mechanisms of the Arctic development, and to study the influence of other countries on the modernization of the economy of the Northern sea route. The scientific results of the study include a theoretical justification of the need for institutional mechanisms for the development of the Arctic, taking into account all stakeholders. The article reveals the features of the political confrontation between Russia and NATO in the Arctic, as well as the patterns of interaction between Russia and non-regional players when considering the further strategic development of the Arctic. This allowed us to determine the Russian principles of relations with other players in the Arctic. On the basis of the research, the directions in which Russia and Western countries continue to develop cooperation are formulated, among the most priority ones that require institutional interaction at the inter-country and global levels: nature protection and pollution control, issues of safety of navigation and control of water area pollution from ships, prospects of investment processes for the modernization of marine infrastructure; development and implementation of the potential of the Northern sea route. The article pays special attention to the direction of penetration into the Arctic by the PRC.*

Keywords: *Arctic strategy, China, institutional environment, infrastructure, modernization, Northern sea route, White paper, oil production, resources, investment.*

Introduction

Recently, the Arctic region has been attracting more and more attention from the leading countries of the world due to its important strategic and geopolitical position. However, in recent years, there have been significant changes in the activities of the leading players in international relations, including China. In order to expand the spheres of influence both at the global and regional levels, including the Arctic region, Russia is making a lot of efforts to effectively adapt to the new international realities in order to fully realize its own potential and strengthen its international position. We can agree with the researchers who believe that effective institutional mechanisms play a special role in this process[4, 5, 8, 12, 19, 25].

For a long time, focusing on institutions in the field of growth and development theory has been a hallmark of the unorthodox approach. Today, a new generation of economists trained in economic modeling and econometrics has emerged who share the idea that institutions play a fundamental role in explaining the causes of economic growth, which puts forward new coordination mechanisms and evolutionary economic processes that contrast with conventional market mechanisms and the established equilibrium of traditional growth theory [7].

Modern theories of economic growth, such as the so-called "endogenous economic growth theories", try to show that economic growth mainly depends on the ability of different countries to produce technological innovations, the availability of infrastructure and the level of training. However, these factors provide only immediate, but not fundamental, reasons for growth; in addition to these systemic eliments, the main explanation for the differences in growth trajectories and rhythms between countries lies in the differences in their institutional architecture [22].

Institutions are robust and self-sufficient (trajectory-dependent) and, therefore, institutions also contribute to explaining long-term divergences in international growth trajectories. Institutions create, first of all, security and reduce the uncertainty associated with all types of economic transactions. In addition, they create certain incentives for economic actions, such as capital accumulation or educational efforts, since they determine the return on actions and investments [23]. Insufficiently formed institutional mechanisms limit Russia's capabilities in the process of modernization of the Arctic economy [14].

Despite the serious deterioration of Russia's relations with the West in general, the Arctic is a platform where the level of tension between NATO and Russia is significantly lower than in other regions. But at the same time, there are processes due to global changes in the geopolitical balance of power and the general warming of the climate. Under these conditions, the Arctic is becoming an increasingly attractive place for those subjects of international politics who previously paid little attention to the far North and are geographically quite far away. Over the past 5 years, most non-Arctic countries have updated their strategic plans and developed documents related to the penetration of the Arctic and consolidation in this region, which was not previously observed. The most active in this field is the PRC. In 2018, for the first time in the thousand-year history of China, the country approved a "White Paper" entirely devoted to the Arctic policy and strategy of the People's Republic of China [16].

Results

The sea route through the Arctic waters is the shortest water route from the north of Europe to the Far East. This route is called the Northern Sea Route (NSR) and is actively developed by Russia, as an alternative to longer sea communications that go around Africa or through the Suez Canal. It is with the aim of developing the NSR that Russia has adopted and is implementing a program for the construction of an icebreaker fleet and ice-class cargo ships [1].

With a total length of the Arctic coastline of 38,700 km, 22,600 km of them fall on the territory of Russia. Approximately 70% of domestic hydrocarbon reserves are located in the Arctic continental shelf. In addition, the NSR can serve as a transport artery connecting Western Europe with the Pacific coast of Asia through Russian territory and ports. Since 2004, Russia has shared borders with NATO member countries not only on the mainland, but also in Arctic waters. This was the result of the expansion to the NATO east with the admission of Poland and the Baltic states to the alliance.

In response, Russia has taken measures to strengthen its western borders, including the Arctic. In addition to the NATO member countries, Finland and Sweden play an important role in the Arctic region, which are not formally part of the alliance, although they share a common policy with it. After the unconstitutional change of power in Ukraine, inspired by the Western special services and the beginning of the civil war in this country, as well as the entry of Crimea into Russia, Russia's relations with the West deteriorated significantly, and the activities of the NRC (NATO-Russia Council) were practically frozen [6].

It has already been noted that, although Finland and Sweden are not formally part of NATO, these countries actively cooperate with the bloc in the military sphere, participating in joint programs, exercises and military operations. The deterioration of relations between Russia and the West in 2014-2015 to the level when the threat of a military conflict between NATO and Russia ceased to be considered hypothetical again put on the domestic agenda of Sweden and Finland the question of whether it is appropriate to officially join the North Atlantic Alliance. Society in these countries has become increasingly inclined towards joining NATO. Russia can only call on these countries to maintain their neutral status.

The only military-political union and, at the same time, the organization for ensuring regional security, in which Russia is a member, is the CSTO. Russia has long attempted to establish a bilateral dialogue on security issues at the NATO-CSTO level, but has met with understanding in the West.

According to the NATO leadership, the creation of an additional negotiating channel in the form of a NATO-CSTO dialogue will practically change nothing in terms of ensuring security, and the presence of another platform for discussions is simply impractical.

In addition, according to Western experts, the real activities of the CSTO are more aimed at creating a counterweight to the PLA in Central Asia, and the struggle for influence within the bloc is paid more attention by its participants than to achieving any operational or foreign policy goals [20, 21, 24].

The Russian approach to the Arctic is greatly influenced by the geographical factor. Part of the land territory of Russia is located in the polar latitudes, the entire Eurasian coast of the Arctic Ocean from the western borders of Russia belongs to it, and in addition, Russia has managed to stake out all the islands in the Arctic Ocean located between its mainland coast and the North Pole. Accordingly, a significant part of the water area of the Arctic Ocean is Russian territorial waters, through which the route of the NSR mainly passes. At the same time, almost untouched Arctic natural resources are an important component of the Russian resource base. And now Russia has adopted and is implementing a program for the accelerated development of the Arctic region [13].

Russia agrees that many Arctic problems also concern non-Arctic countries and even agrees to cooperate with them, especially since such cooperation opens up additional prospects for the economic development of the region. For example, the development of the NSR and the creation of a full-fledged coastal infrastructure along the entire route is an extremely costly and complex task, which is very difficult to solve alone [3]. Therefore, Russia shows its interest in foreign investment and cooperation with other states and corporations, even if geographically unrelated to the Arctic, but ready to provide technological and financial resources.

Almost all major projects in the Arctic, including exploration and subsequent development of various fields, both on the shelf and on land, the construction of port infrastructure, the implementation of the icebreaker fleet development program are implemented with the participation of foreign companies [9]. This process is quite strongly hindered by anti-Russian sanctions, in particular, prohibiting the supply of entire groups of equipment to Russia, the provision of technologies, cooperation with Gazprom and Rosneft in the development of oil fields on the Arctic shelf [10].

In addition, the opportunities for domestic oil and gas companies to obtain foreign loans are significantly limited (although this had its positive side, allowing them to avoid over-crediting and, as a result, dependence on foreign banks in the domestic oil and gas sector). However, the sanctions have forced a number of foreign firms to withdraw from joint projects with Russia to develop the Arctic shelf. However, the domestic oil and gas sector needs equipment and technologies from companies from countries that supported the introduction of sanctions. However, the same equipment and technology can be obtained from Southeast Asian countries that did not impose sanctions against Russia. This explains Russia's interest in developing cooperation with companies from Southeast Asia, despite the existing risks. For example, a serious risk is the probability of an increase in accidents, since Asian equipment is usually inferior in reliability to European and American equipment [15].

For a very long time, it was science that was the basis for international cooperation in the Arctic, which developed even during the Cold War. The crisis in relations in 2014-2015 hardly touched this area. Since 2018, the international agreement on the development of scientific cooperation in the Arctic, concluded a year earlier, has been in force, which can be cited as an example of the success of scientific diplomacy achieved during the increasing political confrontation between the West and Russia. [17]

The issues of nature conservation and combating pollution have long been given priority attention by the political leadership of various countries, regardless of the current political situation. In addition, civil society is also concerned about this issue. Cooperation in this direction is almost depoliticized and therefore has good prospects for development even in the conditions of continuing political confrontation [18].

Energy projects are the most attractive for foreign investment. Russia intends to maintain its policy of attracting foreign investors, but due to the introduction of sanctions, it has begun to reorient itself to Asian investors, although so far it has managed to attract not so much money from there. The adopted law on benefits in the Arctic should provide incentives for exploration and production of hydrocarbons in the region. It should be noted that the share of domestic investments in the modernization of the Arctic zone in the total investment volume does not exceed 20% (Figure 1).

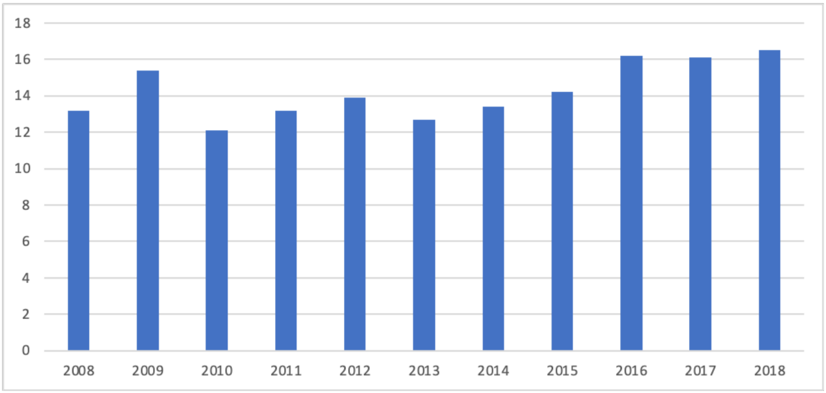

Figure 1-The share of domestic investments in the modernization of the Arctic zone of Russia in the total investment volume, % [11]

The development and development of the NSR is a very ambitious and large-scale project, which, according to the expert community, Russia will not be able to implement on its own. Therefore, Russia is negotiating with possible investors and participants in this project, including China.

Chinese activity in the Arctic region is of serious concern to all Arctic countries, including Russia, even despite the political rapprochement with China, which has occurred in recent years against the backdrop of deteriorating relations with the West.

So among the Russian delegation, opinions on how to treat the Chinese penetration into the Arctic were divided. Some of the Russian representatives are inclined to demand that the PRC provide extremely clear wording about China's plans for the use of the NSR and participation in the development of Arctic natural resources. Against the background of the fact that the PRC openly proclaims itself "almost an Arctic country", all the delegates agreed that the Chinese view of the Arctic from a military and strategic position should be taken into account.

Although the PRC does not currently have any capabilities to deploy its military presence in the Arctic, Russia is still concerned about the prospect of China's military penetration into the region. It is noteworthy that the United Kingdom supports the Russian position on this issue. The participants of the meeting were also concerned about the program launched by the PRC to build its own icebreaking fleet. There was also an increase in the share of the PRC in the scientific study of the Arctic region. Previously, the leading role in this area belonged to the USSR, but now the PRC began to claim it [2].

Conclusion

In order to maintain a strategic position in the Arctic, Russia must proactively outline the regulatory and institutional contours where it can, in cooperation with other players, extract maximum benefits. It should not be forgotten that the sphere of interests of the People's Republic of China is constantly expanding and is already gaining global coverage. The discursive force 2.0 is supposed to create mechanisms for effective influence on decisions taken at the international level on the widest range of international agenda from control over cyberspace to space exploration, from promoting the interests of the People's Republic of China in the planetary financial and economic configuration to the organization of technological platforms with a focus on the standards of the People's Republic of China and the products of Chinese manufacturers.

But the institutional discursive force 2.0 is primarily aimed not at promoting the Chinese model externally (although some Chinese researchers emphasize this point), but at systematically integrating it into supranational structures to gain opportunities to influence their decisions, standards, norms and protocols, while promoting Chinese approaches to various basic concepts and ideas (for example, the Chinese vision of cybersecurity, or, again, the Chinese approach to the concept of human rights, where collective rights take precedence over individual rights).

The task of Russia at the present stage is not so much to harmonize Russia's integration into the global world, but to transform institutional interaction with other states in the direction of forming a modernized Arctic economy.

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旅游业是国家间一体化进程发展的一个因素
TOURISM AS A FACTOR IN THE DEVELOPMENT OF INTEGRATION PROCESSES BETWEEN COUNTRIES

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注解。本文揭示了重大国际事件对巴什科尔托斯坦共和国共和国酒店和旅游业发展的影响。俄罗斯联邦的这一主题位于欧洲和亚洲交界处的乌拉尔山脉南部，拥有独特的旅游资源，并且由于重大的政治，经济和文化活动，可以成为主要的商业，活动和商务中心之一。生态旅游。乌法（Ufa）是巴什科尔托斯坦共和国首都，正在成为国际论坛的平台，这些论坛有助于加强上合组织和金砖国家成员国的业务联系和一体化进程。 2021年夏天，巴什科尔托斯坦共和国将成为第六届世界民俗节CIOFF的举办地。乌法将接待来自56个国家/地区的创意团队。这些活动加强了沟通联系，激活了业务流程，扩大了国际文化空间，并丰富了个人和社会的精神潜力。

关键字：上合组织和金砖国家，巴什科尔托斯坦共和国，酒店业，旅游业，第六届世界民俗运动会

Annotation. *The article reveals the impact of major international events on the development of the hospitality and tourism industry in the Republic of Bashkortostan. This subject of the Russian Federation is located in the Southern Urals, at the junction of Europe and Asia, has unique tourist resources, and thanks to significant political, economic and cultural events, can turn into one of the leading centers of business, event and eco-tourism. The capital of Bashkortostan – Ufa is becoming a platform for international forums that contribute to strengthening business ties and integration processes of the SCO and BRICS member countries. In the summer of 2021, Bashkortostan will become the site of the VI World Folklore Festival CIOFF. Ufa will host creative teams from 56 countries. These events strengthen communication links, activate business processes, expand the international cultural space, and enrich the spiritual potential of the individual and society.*

Keywords: *SCO and BRICS, Bashkortostan, hospitality industry, tourism, VI World Folklore Games*

In July 2015, a landmark event for the Republic of Bashkortostan took place – the summits of the SCO and BRICS countries were held in Ufa, and the heads of 15 states arrived. Holding such a significant event required careful preparation of the infrastructure, creation of a comfortable working area, ensuring the security of the event, and reconstruction of the hotel sector.

For the summit in Ufa, a number of hotels of world-famous brands were built: Hilton Garden Inn Ufa Riverside, Sheraton, Holiday Inn Ufa.Park City, etc. A complete reconstruction was carried out in the hotel complex "Bashkiria", partially reconstructed "AZIMUT Hotel Ufa", the hotel "Ufa-Astoria" and others. Careful preparation for the summit turned Ufa into a center of business forums. The Republic has received the right to hold new forums of global significance.

In 2019 Ufa became the venue for the V Forum of Small and Medium-sized Businesses of the regions of the SCO and BRICS member countries, which was attended by 2,800 participants from more than 30 countries. The forum participants paid much attention to the issue of business security in Russia.

Representatives of the restaurant business of the republic declared themselves at the Forum. A record was set for the Russian Book of Records – "The biggest hashtag from baursak", a folk Bashkir dish. The weight of the structure was 209 kilograms.

From December 8 to 11, 2020, in the context of the pandemic, the International Business Week – a major business forum – began in Ufa in a mixed online and offline format, within the framework of which the VI Forum of Small and Medium-sized Businesses of the regions of the SCO and BRICS member countries was held. One of the main issues of the forum was the issue of tourism development.

As part of the implementation of the project "Eurasian Scientific and Educational Center" discussed at the forum, the authorities of the Republic of Bashkortostan plan to build a new interuniversity campus in the region. We have already allocated 15 hectares of land. These will be both campuses for students and full-fledged housing for invited foreign and other highly qualified specialists of the educational and academic environment. These will also be joint spaces for recreation, conferences, lectures, and sports. These will be laboratories that we don't have yet." The implementation of this project will contribute to the development of educational tourism in the republic [2].

To attract mass tourists, it is necessary to advertise the tourism potential of the republic. In the spring of 2018, the brand "Terra Bashkiria"was created. Its customer was the Bashkiria State Committee for Entrepreneurship and Tourism. There are no "kurai-kumys-neft" motifs familiar to our republic in the logo. The logo is based on a symmetrical and multi-colored geometric shape. Unfortunately, even after the appearance of the brand, it did not become better with the financing of tourism. In order for people to come to Bashkiria on vacation, especially if we are talking about foreigners, we need at least hotels of the appropriate level and high-quality service. No natural monuments and beauty will attract tourists if it is impossible to reach them comfortably, if there are no conditions for living.

On April 29, 2021, a new national project "Tourism and the Hospitality Industry"was presented at the Coordination Center of the Russian Government. It consists of three federal projects.

The first project. "Development of tourist infrastructure and creation of high-quality tourist products". In it, state support measures will include subsidizing the interest rate for the construction of hotels; grant support for public and business initiatives; subsidies to the regions for providing infrastructure and for the formation of tourist-attractive city centers.

The second project. "Increasing accessibility and awareness of tourism products". In it, the support measures include already developed mechanisms: subsidizing trips to citizens (cashback), subsidizing charters, tour operators, co-financing and promotion of events. The Federal Tourism Agency is working hard to develop digital solutions and expand the capabilities of the national online tourism portal. Already this year, people will have access to information about 40 thousand tourist objects on a single portal.

The third project. "Improving tourism Management" contains such innovations as: the creation of the UNWTO training center and the specialized institute for tourism on the basis of the existing university; the creation of business incubators and accelerators; the transfer of the provision of public services by Rosturizm to a digital format, improving data collection and statistical accounting; the development and launch of digital solutions aimed at protecting consumer rights, increasing the transparency of the industry; the formation of a national project management system, including a departmental project office; reducing the VAT rate and other support measures.

The concept of tourist macro-territories with popular and existing tourist flows, such as the "Big Ural", "Big Altai", "Big Golden Ring", "Big Volga", the Caucasus, Lake Baikal, etc., is also introduced.

The document is aimed at the comprehensive development of the country's tourism industry. By 2030, thanks to the tools of the national project, it is planned to increase the tourist flow by more than 2 times from 65 to 140 million trips around the country per year, double the number of jobs in the industry – up to 4.7 million jobs and export of tourist services – up to 22.5 billion dollars[3].

It is planned to allocate 529 billion rubles from the federal budget for the implementation of the national project until 2030, and another 72 billion from regional funds. It is also planned to attract extra-budgetary private investments for the construction of infrastructure.

The tools of the national project, first of all, are aimed at creating a new modern tourist infrastructure by attracting investors to the industry.

In addition, to solve the problems of promoting recreation in Russia, it is planned to create the ANO "Tourism Development", the founder of which will be Rosturizm. 1.3 billion rubles should be allocated for its events next year[3].

In the national tourist rating of 2019, Bashkortostan entered the top ten leading regions. The tourist flow in the republic exceeded the figure of 2018 by 7% and reached 2.7 million people. The republic is the leader among the regions of the Volga Federal District (fifth place in Russia) by the volume of health and wellness services. The unique nature of the Bashkir region, the presence of historical and cultural monuments, the dynamically developing infrastructure of sanatoriums, holiday homes and camp sites create all the prerequisites for creating recreational areas and a popular tourist product.

In 2020, despite the pandemic, three times more tourists than usual visited Bashkortostan during the summer, about 2 million people. For us, this is a huge chance, an incentive for the development of domestic tourism. The Republic of Bashkortostan received the Grand Prix of the Russian Event Awards 2020 for holding the All-Russian Investment Sabantuy "Trans-Urals-2020" in the category "Best Tourist MICE Event", and the Gastronomic Festival of Folk Cuisine "Goose and Honey", held on the fields of the Sibay Investment Sabantuy, took a special prize as"The best event in the field of gastronomic tourism". These results can attract attention, and people will come here to try this goose, this special Bashkir cuisine. Events such as the International Business Week raise domestic and business tourism to a new level.

The tourism potential of the Republic of Bashkortostan allows attracting millions of tourists to the region annually due to the development of infrastructure and the holding of new significant events.

"Our goal is to reach the level of about 3-3. 5 million tourists a year in the near future, significantly add the percentage of foreign tourists. If now there are about 100 thousand foreigners, this is 5%, then the task is to increase it to 10-15%. We expect that Bashkortostan will be among the top five regions of the Russian Federation in terms of tourism, in terms of the number of tourists, and in terms of the tourism infrastructure that we are currently forming," the Prime Minister of the Republic of Bashkortostan, Andrey Nazarov, set the task [2].

On July 3-10, 2021, the VI World Folklore Festival CIOFF®is scheduled to be held in Bashkortostan and Ufa. About three thousand artists from 56 countries of the world will arrive in Bashkortostan to present their traditional music, dances, folk crafts, cuisine, costumes and stage art to the residents and guests of the republic. At the same time, visitors of the festival will be able not only to act as bystanders, but also to actively participate in various interactive activities – to learn how to play folk instruments, try unusual national dishes, learn traditional arts of different peoples, etc.

During the days of the Folklore Festival, 50 concert events are planned in the republic, as well as an international conference on culture, a photo exhibition of musical instruments of the peoples of the world, an exhibition "Masks of the Peoples of the World", an exhibition of masters and artisans of decorative and applied arts, master classes, venues for traditional folk games from the CIOFF® Youth Committee, charity events in social institutions.

The main events of the Folklore Contest will be held in Ufa – opening and closing ceremonies, a large-scale costume parade of participants, conferences and exhibitions. Also, the participants of the Folklore Contest will be 33 municipalities of the republic, united in 6 festival districts. The festival program includes concerts, exhibitions, the organization of various venues that demonstrate elements of the traditional culture of the peoples of Russia and the world in an interactive format, costume parades and much more.

Ufa is actively preparing for this large-scale cultural event. Teachers and students of the department "Tourism, Hotel and restaurant service", participants of the student club "Excursions and travel" of the Ufa State Petroleum Technical University also actively participated in the process of preparing for the festival. For the guests of Ufa, an audio guide is being developed, including about 50 interactive excursions, guides who conduct excursions in English are being prepared, and trainings on meeting and seeing off guests are being practiced.

Thus, the necessary infrastructure for holding international business forums has been created in Bashkortostan, which contributes to the development of the hotel and restaurant business, excursion activities, which stimulates the development of business tourism. In the autumn of 2022, Ufa is scheduled to host the 47th International Congress on the Use of Beekeeping Products in Medicine-Apimondia, which will further increase interest in this branded product of the republic, increase the honey image of Bashkortostan and will contribute to expanding the range of tourist and excursion services in the region.

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分析世界经济的双赤字
ANALYSIS OF THE TWIN DEFICITS OF THE WORLD'S ECONOMIES

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抽象的。 本文探讨了"双赤字"现象的理论基础。 重点介绍了经济学流派的方法，以及孪生赤字的类型及其产生的影响。 此外，作者还抽取了一些国家样本来分析经济中双赤字的存在。 在选定的国家中，对两个赤字之间的关系进行了相关分析。 指出了处理双胞胎缺陷的方法及其有效性。
关键词：双赤字，政府预算赤字，经常账户赤字，相关分析。
Abstract. *This article examines the theoretical foundations of the "twin deficits" phenomenon. The approaches of economics schools are highlighted, as well as the types of twin deficits and the impact they have. Further, the author draws a sample of countries to analyze for the presence of twin deficits in the economy. Among the selected countries, a correlation analysis of the relationship between the two deficits is carried out. Methods of dealing with twin deficits and their effectiveness are indicated.*
Keywords: *twin deficits, government budget deficit, current account deficit, correlation analysis.*

Introduction

The phenomenon of "twin deficits" is a relatively young in economics; first actively began to be considered in the United States in the 1960s-1980s [1]. Despite the fact that the theoretical support and refutation of the phenomenon was highlighted by Keynesians and Ricardians years earlier, the twin deficits are not particularly widely covered in the scientific literature. Nevertheless, the available macroeconomic data and current economic news provide an exhaustive amount of information for studying both the concept of the phenomenon and its practical component on the example of a number of countries.

Main part

1. Theoretical foundations of the "twin deficits" phenomenon

Twin deficits is a state in the country's economy when the state budget deficit is accompanied by a deficit in the current account of the balance of payments

[1, p. 265-267].

This is proved by representatives of the Keynesian school of economics. They believe that with an increase in the budget deficit as part of an increase in government purchases and tax cuts, aggregate demand also grows, which leads to an imbalance in the export-import flows of the trade balance [7]. On the basis of Keynes's thesis, the Mundell-Fleming model was developed (Fig. 1) [13].

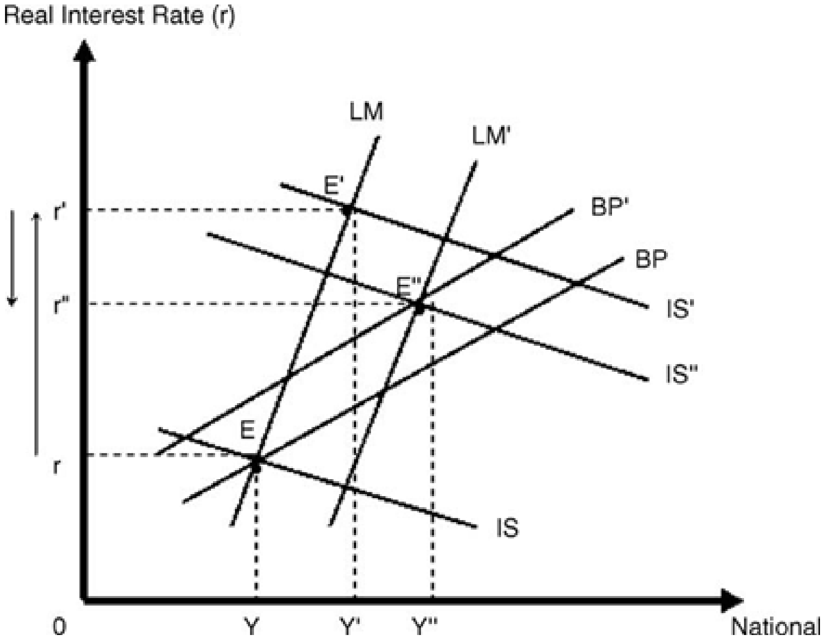

Fig. 1. *The government budget and current account deficits of the Mundell-Fleming model*

Source: [13, p. 706].

When the budget deficit grows, the government raises the domestic interest rate (r - rate) in order to curb inflation. The increase in the rate increases the investment attractiveness of the country (IS - investments-savings), as a result of which the inflow of foreign capital increases (Y). The inflow of investments and capital, in turn, leads to the strengthening of the national currency (LM - liquidity-money). In this case, simultaneously with an increase in domestic consumption, imports that have fallen in price are growing in volumes, and exports that have risen in prices in volumes are falling [6, p. 233-236]. The excess of imports over exports (in transactions with goods, services) leads to a deficit in the trade balance, or a deficit in the current account (BP - balance of payments) [1, p. 261-267; 13, p. 701-712; 16, p. 31-41].

However, scientific opponents of Keynesians led by Ricardo (Friedman [3, p. 20-37], Modigliani and Ando [9, p. 99-124]) argue that the budget deficit cannot play the role of a trigger for economic growth and that there is no link between the two deficits [2, p. 1-10].

In general, two types of twin deficits can be distinguished (Table 1).

Table 1. *Types of twin deficits*

Type of twin deficits	Occurrence	Characteristics	Impact on the current account
Cyclical/ passive	Arose as a result of the use of cyclical mechanisms in an economic downturn, i.e. due to a drop in income	Characterized by a decrease in income with a drop in business activity	Reduction of export-import flows; does not always lead to twin deficits
Structural/ active	Occurred with full employment and constant taxes, i.e. due to growth in government spending	Characterized by an increase in consumer demand, strengthening of the national currency	Increase in imports and fall in exports; leads to twin deficits

Source: compiled by the author based on [4, p. 8-14; 15, p. 22; 17].

Thus, summarizing the above causal relationships of the occurrence of two deficits, it should be concluded that negative consequences prevail rather than positive ones. The growing budget deficit is accompanied by an increase in public debt. Managing the current account deficit is more difficult because it is less flexible in control and management. The role of cyclical twin deficits is insignificant because it does not lead to profound economic shifts, in contrast to the structural one. Active deficit is a problem for the country and require a fight against it because it is complex along the chain of occurrence and affects many areas of the country's economy.

2. Revealing twin deficits in the worlds' countries

This phenomenon is a frequent occurrence both in the previous century and now, which determines the relevance of identifying states that have experienced twin deficits in recent years. Countries with significant GDP are of the greatest interest. In 2019, the 60 largest economies had a gross domestic product of more than USD 100 billion [14]. For further observation, the sample includes countries with a government budget deficit for a period of 11-13 years: 10 years for the deficit itself, 1-3 years - a time lag for the emergence of a current account deficit.

It is noteworthy that 48 out of 60 countries experienced government budget deficits for at least 11 consecutive years from 2000 to 2019. However, only 28 countries had a current account deficit for more than 11 consecutive years in the same period [5; 11].

Figure 2 provides a summary table of deficits in the 28 selected economies. It illustrates that in many countries the combined duration of deficits in the budget and the current account is more than 11 years. However, a closer examination reveals that in some of them these gaps are fragmented, which makes the study of the deficit in them impractical (Chile, Kazakhstan, Colombia, South Africa, Spain, Ukraine, Vietnam, Uruguay).

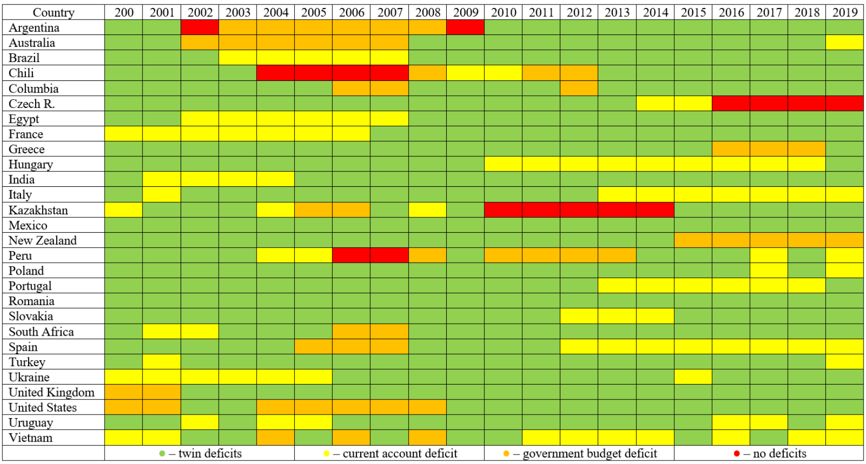

Figure 2. *Government budget deficit, Current account deficit and twin deficits, 2000-2019.*

Source: compiled by the author [5; 11; 14].

Based on data from the 20 remaining countries in the sample, where potential twin deficits in the economy have been present for more than 10 consecutive years, a correlation analysis was carried out between the two deficits. It was found that twin deficits as a phenomenon are absent in 12 countries, in which the relationship between the government budget deficit and the current account deficit for identical time periods is either direct, noticeable, weak, or reversed (Table 2).

***Table 2.** Characteristics of the simultaneous presence of two deficits in the economy*

Country	Period, years	Duration, years	Spearman's correlation coefficient for the period	Strength and direction of association between the two deficits
Argentina	2010-2019	10	0.80	Direct strong
Australia	2008-2018	11	0.73	Direct strong
Brazil	2008-2019	12	-0.28	Inverse weak
Czech Republic	2000-2013	14	0.54	Direct noticeable
Egypt	2008-2019	12	0.45	Direct moderate
France	2007-2019	13	0.40	Direct moderate
Greece	2000-2015	16	0.62	Direct noticeable
Hungary	2000-2009	10	0.22	Direct weak
India	2005-2019	15	0.53	Direct noticeable
Italy	2002-2012	11	0.23	Direct weak
Mexico	2000-2019	20	0.11	Direct weak
New Zealand	2000-2014	15	-0.34	Inverse moderate
Poland	2000-2016	17	0.19	Direct weak
Portugal	2000-2012	13	-0.08	Inverse weak
Romania	2000-2019	20	0.06	Inverse weak
Slovakia	2000-2011	12	-0.45	Inverse moderate
South Africa	2008-2019	12	-0.49	Inverse moderate
Turkey	2002-2018	17	-0.71	Inverse strong
United Kingdom	2002-2019	18	-0.01	Inverse weak
United States	2009-2019	11	0.84	Direct strong

Source: calculated by the author [5; 11; 14].

As a result, 6 countries were included in the sample for the further twin deficits analysis:

- with a direct noticeable connection - Czech Republic, Greece, India;
- with direct strong connection - Argentina, Australia, USA.

3. Methods for dealing with twin deficits

In 2002-2003 in the United States, they used such an instrument as the issuance of government bonds. With the economy in those years declining in net savings rates, rising house prices and increasing household debt, reducing capital inflows from foreign investors (including foreign central banks) was a key challenge in combating twin deficits. It is worth noting that these actions of the state government helped the country to cope with the deficit in a short time [11; 12; 14]. However, the experience of 2002-2003 was not applicable to current conditions due to the fact that the twin deficits are still inherent in the US economy.

Argentina's economy has had twin deficits since 2010, but the authorities began to worry only in 2016 when the phenomenon brought its consequences in the form of a sharp jump in inflation and a large-scale depreciation of the national currency against the US dollar. For almost ten years, the budget deficit increased and exports fell, and then it was decided to attract external borrowings ($ 16.5 billion in 2016, 2.75 in 2017). They have been helpful in dealing with deficits because their values in% of GDP decreased, although the final disposal of it has not yet come [11; 14; 18].

The situation with the twin deficits in Australia is somewhat different. The phenomenon has been observed in the country since 2008, and only in 2019, the budget was in surplus. One of Australia's most important export items in recent years, iron ore, accounts for over 20%. In 2016, prices for this product reached a minimum of $ 40 per tonne, but then began to rise. In 2019-2020 Australia's exports are on the rise due to growing demand for iron ore from China. This provides the economy with a reduction in the current account deficit in terms of the trade balance. Together with this change, the state budget is also trying to balance. Keep in mind that a positive current account is almost impossible to control. it directly depends on the price of the ore [8; 14; 18].

India's twin deficits 2008-2020 combined the features of both Argentine and American, and Australian. The Government of India is now actively issuing government bonds to support capital inflows into the country. India is attractive for foreign investment; therefore, it is directly interested in the effective use of funds: investing them in production, business development, projects, infrastructure development [11; 14; 18].

Conclusion

The phenomenon of "twin deficits" is not a separately existing category, but a generalizing term for the simultaneous presence of state budget and current account deficits in the economy, and the former is the reason for the emergence of the latter. This thesis is confirmed by Keynes and his followers but denied by Ricardo and other opponents. Nevertheless, using the Mundell-Fleming model, it was proved that an increase in aggregate demand leads to an increase in the budget, and then to a negative trade balance.

Based on data from 60 economies with a GDP of more than USD 100 billion (for 2019), at the first stage of the analysis, it was determined that 6 of them (the

Czech Republic, Greece, India, Argentina, Australia and the United States) had twin deficits over the past 20 years.

The practice of some of the selected six countries shows that the most effective way to deal with twin deficits is to issue government bonds and maintain an inflow of foreign direct investment. However, these methods do not always lead to getting rid of the deficit, because each economy is characterized by specific features (export/import orientation, dependence on prices for certain groups of goods).

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食品在线零售贸易中企业业务风险的预测评估

PREDICTIVE ASSESSMENTS OF BUSINESS RISKS OF ENTERPRISES IN THE FIELD OF ONLINE RETAIL TRADE IN FOOD

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注解。　本文详细讨论了2020年在线食品零售领域发生的变化。这一时期的主要趋势已经在COVID-19大流行的背景下得以确定。

该研究的目的是确定细分市场中的参与者可能面临的风险。

研究方法：统计数据的分析分析，媒体出版物。

关键字：在线交易，食品，大流行，COVID-19，零售商，大卖场，零售连锁店，快递，购买力。

Annotation. *The article discusses in detail the changes that have occurred in the online food retail segment in 2020. The key trends of this period have been identified in the context of the COVID-19 pandemic.*

The purpose of the study is to determine the risks that players in the segment may face.

Research methods: analytical analysis of statistical data, publications in the media.

Keywords: *online trade, food, pandemic, COVID-19, retailers, hypermarkets, retail chains, express delivery, purchasing power.*

The growth of online grocery trading is the main trend of 2020. In 2019, 59% of the main Russian FMCG retailers were engaged in the development of their own online stores. In less than a year, the situation has changed: according to Nielsen data as of September 2020, 76% of retailers acquired online stores [1].

The coronavirus pandemic has spurred explosive market growth. For two months, in April-May, dozens of newcomers came to the market. A wide variety of companies, including those who specialized in other segments, began to master online sales. In March, the Lamoda store radically expanded its assortment. In addition to clothing, Lamoda began to offer customers cereals, tea and coffee, and a

little later - goods from the «VkusVill» network [2].
Food delivery services also began to sell food (for example, the Moscow «Kukhnya na rayone»).

First of all, the online direction began to actively develop profile players, food retailers - both federal («Miratorg» relaunched the previously closed platform) and regional (in Kazan – «Bakhetle», Nizhny Novgorod – «Sladkaya zhizn'», and so on.).

All these processes, the acceleration of which is caused by the pandemic, have led to a noticeable growth in the online grocery market. At the end of 2019, its volume was 43 billion rubles. Infoline experts predicted growth in the summer by the end of 2020 to 130-150 billion rubles [3].

The growth was also noted by the retailers themselves. X5 Chief Executive Officer Igor Shekhterman predicted that online food retailing will show «threefold growth during 2020» [4].

According to ATON forecasts, in four years the volume will reach 720 billion rubles. That is, over a five-year period - from 2019 to 2024, the market will grow more than 16 times [5].

There is enough space on the market: today the share of online trade in the country is 6% (for comparison: in China, the share is 28%) [6].

“The online channel can become a new growth point for food retail and compensate for the losses of companies offline. Despite the fact that the Internet still occupies a small share in the segment's sales, the importance of the direction will increase as it penetrates deeper into the everyday life of Russians, ”stated in the RBC study“ Online sales as a growth driver for Russian FMCG retail” [7].

This is also influenced by the effect of the self-isolation regime - the emerging habit of online shopping. 3/4 of buyers (up to 75%) were not going to reduce their activity in using online services for shopping for food even after all quarantine restrictions were lifted, according to a study by Yandex.Vzglyad [8].

«By mid-April, the values (of offline sales) returned to their previous level ... At the same time, the dynamics of online sales hardly followed the general trend, remaining at a level significantly higher than the average annual rate», Nielsen analysts reported [9].

The motivations of shoppers who choose between going to a physical store and ordering with a gadget are different. They go to a physical store mainly out of habit, they make online purchases because of the wide selection of goods on offer, plus they do not want to waste extra time and stand in lines.

Another important point is the change in geographical accents: the greatest growth is now shown by sales not in cities (8.9%), but in rural areas (22%) [10].

At the same time, retailers will have to adjust their income. Online purchases, noted Grigory Vashchenko, head of the trade operations department on the Russian stock market at «Freedom Finance», «bring low margins (and possibly a loss - companies refuse to disclose detailed information, there is an assumption that food orders are profitable with an amount of 5000 rubles or more per large cities)» [11].

The decline in purchasing power in 2020 is one of the risk factors for any business, and online grocery shopping is no exception. The decrease turned out to be significant. According to the HSE Development Center, in the second quarter of 2020, purchasing power for 12 of the 24 key items in the food basket fell to a ten-year low.

«In the second quarter of 2020, the minimum purchasing power of the average per capita money income of the population for the period from 2011 to 2020 was reached for 12 out of 24 basic foodstuffs. Among these products are: white and rye bread, beef, fish, milk, butter, black tea» the HSE study reported [12].

The difficult financial situation changes the emphasis in consumer choice - buyers carefully look at prices, hence the noticeable increase in the share of private labels. In July 2020, the growth was 174% compared to July 2019. Preference is given to dairy products, coffee and tea, cheeses, toilet paper and other hygiene items [13].

Accordingly, it makes sense for online stores to increase the share of private labels in the product line - or even start their production from scratch, which requires additional costs.

Online hypermarkets will lose out to express delivery - the last segment will grow in five years (2019-2024), according to forecasts, the fastest. In 2019, the share of online hypermarkets was 57%, in 2024 it will decrease to 34%. The share of express delivery will increase from 2% in 2019 to 27% [14].

These basic e-grocery segments differ in terms of delivery times and choices offered. The online hypermarket «Okay» has a delivery time - on the day of order, assortment - 25,000 SKU [15].

The «Samokat» express delivery service fulfills an order within half an hour, but the choice of goods is proposed to be made from 2000 SKU [16].

As can be seen from the numbers, online hypermarkets will still maintain their leadership positions in the market (34% versus 27% for express delivery), but players who operate only hypermarkets may experience a decline in revenues. In this sense, those who develop both segments are protected as much as possible, for example, X5 Retail, which owns the «Perekrestok» online supermarket and «Pyaterochka» express delivery.

The promising online market is inevitably captured by the largest - and most powerful - players, and they showed the greatest growth in the segment in 2020. (X5 Retail Group - 370% growth, «Utkonos» - 85%). The head of the Infoline agency, Ivan Fedyakov, predicted that by the end of 2020, players from the top ten leaders will account for about 75%. In 2019, their share was 70%. This means that the consolidation process will continue. Obviously, market participants who are not in the top 10 will have a difficult time, and in order to reduce risks, they will need to soberly assess their capabilities.

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并购研究所的发展：历史和法律方面

DEVELOPMENT OF THE INSTITUTE OF MERGERS AND ACQUISITIONS: HISTORICAL AND LEGAL ASPECT

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注解。 基于对并购制度的回顾性分析，作者区分了其形成和发展的六个阶段，每个阶段都具有进行此类交易的一定程度的活动。 结论是需要对兼并和收购作为经济实体的重组形式进行进一步研究，因为在快速发展的经济营业额中，并购是永久性的。

关键词：经济营业额，并购，法人重组，反垄断立法。

Annotation. *Based on a retrospective analysis of the institution of mergers and acquisitions, the authors distinguish six stages of its formation and development, each of which is characterized by a certain degree of activity in making such transactions. The conclusion is made about the need for further study of mergers and acquisitions as forms of reorganization of economic entities, since in a rapidly developing economic turnover, mergers and acquisitions are permanent.*

Keywords: *economic turnover, mergers and acquisitions, reorganization of a legal entity, antimonopoly legislation.*

The end of the 19th century can rightly be considered as the beginning of the development of the global market for mergers and acquisitions. The United States became the country where such economic instruments were first applied and it remains the leader in the number of transactions to this day. The concept of "merger and acquisition" (M&A) represents a set of economic processes, causing business and capital increase by transferring control from some companies (smaller in size), to other, the larger ones.

Traditionally, there are two types of mergers: a) consolidation and b) assets pooling. Under *consolidation,* the companies that participate in the merger cease to exist as autonomous (independent) legal entities. In turn, all obligations to counterparties associated with the defunct companies are transferred to the newly formed company. Moreover, the newly formed company becomes the management entity of all the assets of the companies that have become extinct.

The assets pooling implies a different way of merging. Thus, the organizational and legal forms of companies are preserved and they continue their core business, provided for by the statutory documents. However, the owners of such companies must transfer exclusive rights of control over their companies to the newly created one as a contribution to the authorized capital. [1].

An acquisition is a transaction that has a specific purpose to establish ultimate control of the parent company over the business company. Such transactions are carried out by acquiring more than 30% of the authorized capital of an acquiring company. Later this company joins the parent company.

Mergers and acquisitions should be distinguished from a takeover as a form of reorganization of a legal entity. During a takeover (affiliation) one of the companies (the parent company), to which others are going to join, continues its operations, while the rest, the affiliating companies, cease to exist as legal entities and transfer their rights and obligations to the parent company.

Today, in a rapidly developing economic turnover, mergers and acquisitions are of a continuing nature. This state of affairs was not always the case, their emergence and development has its own history.

There are six main stages in the formation and development of M&A transactions, which are characterized by a certain degree of activity in making the transactions.

The first stage dates back to 1897-1904. During that period, M&A transactions gained their greatest popularity in such industries as metallurgy, mechanical engineering, food production, coal and oil mining. Mergers and acquisitions accounted for about 70% of the total volume of transactions in these industries. A distinctive feature of merger transactions was their horizontal type, which implies the amalgamation of companies operating in the same industry and producing a homogeneous group of goods.

As a result, such type of transaction led to a monopoly in certain sectors of the economy. The clearest and earliest example in history is the merger of an American steel company with its competitors, which in 1901 resulted in the newly formed company controlling two-thirds of US steel production. The first stage led to the disappearance of more than two thousand companies, which were replaced by new ones with a higher level of production concentration. Despite the Sherman Antitrust Act, a concomitant reason for such results was the lack of proper control by the antimonopoly authorities of the state.

At that time, financial institutions supported many of the M&A transactions. However, in 1904, due to the collapse of the stock market, these institutions were forced to cease to exist, and, as a result, they could not ensure the growth of M&A transactions. That marked the end of the first period.

The second period lasted from 1916 to 1929. Its main difference from the first one is the change in the type of mergers, which have acquired a vertical character. That led to the oligopolistic structure of some sectors of the economy. Moreover, the development of antimonopoly legislation contributed to the tightening of control over the transactions carried out by the state. The Sherman Act was more aimed at preventing cartels formation and unfair business operations. For this reason, the Clayton Act was passed in 1914, which had a more dampening effect on M&A transactions and preventing the formation of monopolies. [2]

The number of merger transactions exceeded 4500 and, by the end of the period, the market lost more than ten thousand companies. The companies mainly used borrowed funds to complete transactions. On the one hand, this allowed investors to become profit beneficiaries, but on the other hand, this procedure increased the risk of impairment of value. In 1929, the stock market collapsed again, which entailed much more serious consequences for the country's economy and, as a result, the termination of merger transactions, and subsequently the end of the second period.

The third period lasted from1965 to 1979 and the active growth of M&A transactions led to the emergence of a large number of conglomerates. The latter accounts for an association of companies that carry out entrepreneurial activities in various sectors of the economy. This was facilitated by even stricter antimonopoly laws, which made it difficult to conduct vertical and horizontal mergers.

In its turn, the fourth period from 1980 to 1991 was aimed at destroying the emerging conglomerates and due to the softening of the antimonopoly legislation, mergers renewed a horizontal character, and many of them were hostile.

The fifth period from 1995 to 2007 is characterized by the growth of mergers and acquisitions in the late 90s. According to Mr. Samedov U.N. “it was stipulated by the widespread of information and telecommunication technologies and the collapse of the USSR, as far as privatization of many state-owned enterprises and their subsequent corporatization played an important role in the post-Soviet formation of the market. With increasing global competition, a massive unification of transnational corporations began in Europe”. [3]. The fifth period is also referred to as the era of mega mergers because against this background, a huge number of transactions with the value exceeding 1 billion US dollars were carried out.

The sixth period started in 2008 and continues to the present. The year 2008 became a turning point as the economic crisis caused a change in the development strategy of many entities of the global market, which forced them to abandon such large transactions. At the present stage of development, mergers and acquisitions are regularly carried out in various sectors of the economy in many countries. However, carrying out such transactions always has its own risks, due to which the likelihood of a profit decrease from a completed transaction increases.

The current state of the Russian market for M&A transactions indicates an increase in the number of such transactions, while a characteristic feature of such an increase is the taking Russian law as applicable by the parties to the transaction. The reason for this is the revision of the norms of contractual and corporate law in Russia. As a result, the Russian legal system acquired instruments that were previously applicable only in English law. Today Russian legislation recognizes practically the entire range of corporate instruments used in M&A transactions available in international practice.

It is therefore clear that for further improvement and development of economic turnover the study of issues associated with mergers and acquisitions should be carried out within the complex practice of their application. These circumstances determine the further need to study M&A transactions as forms of restructuring of business entities.

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作为一种社会活动的权利保护：概念，内容，形式
PROTECTION OF RIGHTS AS A TYPE OF SOCIAL ACTIVITY: CONCEPT, CONTENT, FORMS

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文章规定了充实对因法律变形过程引起的保护人权作为一种社会需要的理解的任务。 这组作者认为，这种需要体现为一种特殊的社会活动-人权活动，它与法律运作的不同要素有着有意义的联系，旨在将人权确立为一种社会现实。 作者指出，人权活动的方法不足，这完全是由人权领域的侵权事实造成的。 人权活动与执法活动之间有区别。

关键字：人权，保护人权，人权活动，人权活动的内容和形式，人权活动和执法活动

Abstract*. The article sets out the task of substantiating the understanding of the protection of human rights as a social need caused by the processes of deformation of law. According to the authors, this need unfolds into a special type of social activity - human rights activity, which is meaningfully correlated with different elements of the functioning of law and is aimed at establishing human rights as a social reality. The author points out the inadequacy of the approach to human rights activities, as generated exclusively by the facts of violations in the field of human rights. A distinction is drawn between human rights activities and law enforcement activities.*

Keywords*: human rights, protection of human rights, human rights activities, content and forms of human rights activities, human rights activities and law enforcement activities.*

Protection of human rights and freedoms is one of the most widespread terms in the public consciousness, which is used in the political aspect, when, for example, they talk about the protection of the rights of refugees and internally displaced persons; in the sociological aspect, when discussing the protection of the rights of women or minors; in the economic aspect, when they talk about protecting the rights of the poor or protecting the rights of equity holders; in the international aspect, when they raise the issue of protecting the rights of the Russian-speaking population in other countries.

The specific meanings behind these aspects of human rights protection may vary depending on the stage of development of society, the historical situation; attention to them sharply increases in a crisis situation and is often artificially fueled by irresponsible political structures or sensationally unhealthy mass media.

However, this multidimensional, transient and sometimes superficial meaning does not eliminate the key issue of the social and legal nature of the protection of human rights, which is enshrined as an independent principle by the world community in the main international documents on human rights, primarily in the Universal Declaration of Human Rights adopted by the UN General Assembly in 1948.

The protection of human rights is enshrined in documents of the constitutional level of civilized countries, including the Declaration of the Rights and Freedoms of Man and Citizen, adopted by the Supreme Soviet of the RSFSR on November 22, 1991. In the Constitution of the Russian Federation of 1993, art. 2 states that "a person, his rights and freedoms are the highest value. Recognition, observance and protection of human and civil rights and freedoms is the duty of the state."

Why, along with the recognition and observance of human rights, a special type of social activity appears - the protection of human rights, is it necessary for the existence and development of society, what are the main elements of the content and forms of this type of activity - we will try to give at least thesis answers to all these questions in the proposed material, based on the characteristics of the current legal system, primarily Russian, and the achievements of legal science.

At first glance, it seems that the reasons giving rise to the need for the protection of human rights lie exclusively in the field of delinquency.

So, according to the interpretation of V.M. Raw, the human rights activity of the state and its bodies is a response to violations of the legal order committed in society and begins from the moment law enforcement and other state bodies begin to actively combat illegal acts, the conditions and reasons that give rise to them. Consequently, "the object of human rights activity is the sphere of illegal acts" [1, p. 426].

V.M. Syrykh also offers a list of goals that the state is guided by in the implementation of human rights activities, namely: 1) suppression of committed offenses; 2) ensuring the real execution of violated subjective rights; 3) identification of persons committing illegal acts and taking measures of state coercion against them; 4) proper execution by the guilty persons of measures of criminal or administrative punishment, disciplinary or civil liability; 5) the adoption of preventive measures against persons who have committed objectively illegal acts [2, p. 427].

This position undoubtedly deserves attention, since violations in the field of human rights, indeed, give rise to the need for the reaction of society and the state in the form of protection of violated rights. However, does this aspect cover other social circumstances that give rise to the need to protect human rights?

How to deal with those situations when there is a public need for the recognition of human rights, but the right is not recognized. Let us refer here to a classic example of non-recognition of the right to private entrepreneurial activity in Soviet times, although private entrepreneurial activity itself in various forms existed in the form of flea markets, sewing clothes at home, underground consumer goods workshops, etc. There is no offense here, but there was a need to protect such a right.

Or how to interpret situations when the law, on the one hand, is enshrined, but does not operate due to the fact that it is not specified in the current legislation. Let us cite here as an example the constitutional right from the Soviet era to judicial appeal against the actions of officials, which was not implemented for a decade due to the absence of a concretizing law. There is also no offense here, and the need to protect human rights is clearly revealed.

Let us take another situation when a right is enshrined in legislation, there are concretizing normative acts, but there are no social conditions for the realization of this right. An illustrative example is the constitutional right to housing in the Soviet era, which was unrealizable in clearly defined forms. legislation. Formally, there seems to be no offense, but the need to protect the right arises.

We believe that the emergence of the need to protect human rights is associated not only with offenses; it has a broader social base and appears as a need to assert human rights as a social reality at different stages of the functioning of the content of law.

Law, aside from the details of the various proposed concepts, in the end is a special type of social activity aimed at streamlining, settling the most important social ties by forming general rules of behavior, their coordination among themselves, various forms of implementation in the behavior of subjects of social life, revealing facts offenses and implementation of legal responsibility. All of the above elements form a single content of law, with the adequate functioning of which a balance of interests of the main social forces is achieved, the stability of social ties and conditions are created for the normal functioning and development of society.

Human rights constitute one of the directions of the functioning of this integral content, which acquires a special meaning and significance due to the fact that it affirms the status of a person in social reality as the highest value of a civilized society and determines the possible forms of realizing a person's creative potential as the main driving force of modern society. It is clear that the need for the protection of human rights can arise at any stage of the functioning of the content of law, from the formation of a legal need and ending with the maintenance of the required law and order if there are appropriate reasons.

The reasons that lead to deviations from the normal course of the deployment of the content of law in the field of human rights can be summed up in one term - these are various kinds of anomalies of law. They can be objective factors that are associated with an insufficient level of development of a given social system or special historical circumstances - economic, financial and political crises, wars, epidemics, etc.

But mainly the anomalies of law are associated with subjective factors, with the fact that law, including in the field of human rights, is created by specific people who have a certain level of legal culture, possessing a given set of legal knowledge and a degree of legal experience. It is also impossible not to pay attention to the fact that people who create law in social life have their own private economic and political interests, adhere to a certain ideology and moral convictions. Among these powerful social factors, legal needs, including in the field of human rights, which are of a universal nature, do not always become dominant and determine the vector of development of society.

Making a conclusion, we state that the protection of law has its source in certain social needs and its emergence is associated with various kinds of anomalies that arise during the development of the content of law in the field of human rights. The need to protect human rights in the event of anomalies is realized through the implementation of human rights activities, the purpose of which is to assert human rights as a social reality. It is important to emphasize these points, since they are key to understanding the peculiarities of the protection of law and human rights activities, the content and forms of the latter.

It has already been said that human rights activities cannot be reduced to responding to certain violations of the current legislation. Human rights activities, according to their goals, have a broader content and refers to the entire process of the substantive structure of law, starting from the formation of legal needs, the creation and coordination of legal norms, their implementation, the identification of the facts of violations and the implementation of legal responsibility. It refers to this whole process to the extent and in that part, in which at various stages of the deployment of the content of law, anomalies appear that impede the assertion of human rights as a social reality.

Human rights activity in its form is aimed at eliminating these anomalies and creating conditions under which the process of asserting human rights as a social reality could be carried out in accordance with the social conditions achieved by society, the level of development of public consciousness and legal culture.

Human rights activities in terms of content and forms in the public consciousness, and often in legislation, are used in a meaning close to law enforcement. For example, Article 45 of the Constitution of the Russian Federation says that "state protection of human and civil rights and freedoms in the Russian Federation is guaranteed." Article 46 - that "everyone is guaranteed judicial protection of rights and freedoms". But article 52 introduces the term "protection" - "the rights of victims of crimes and abuse of power are protected by law."

In the Code of Criminal Procedure of the Russian Federation, the terms "protection" and "protection" are enshrined in Art. 6, which provides for "protection of the rights and legitimate interests of persons and organizations who have been victims of crimes", as well as "protection of an individual from illegal and unjustified accusations, convictions, restrictions on his rights and freedoms." At the same time, Article 11 of the Code of Criminal Procedure of the Russian Federation is called "Protection of human and civil rights and freedoms in criminal proceedings".

In scientific thinking, a scatter of positions is also noticeable in the ratio of human rights activities and law enforcement activities. So, A.V. Malko considers human rights policy to be a special kind of law enforcement policy [2, p. 16]. N.V. Vitruk considers justified the identification of the concepts of law enforcement and legal protection, using the term "protective and protective public activity" [3, p. 366].

E.V. Janusz writes that “the concepts of "law enforcement" and "human rights activities" may be identical, but the resolution of this issue depends on the subject of the encroachment. If we are talking about the protection and protection of the law itself as a regulator of social relations, then these concepts are identical. If we are talking about the protection of the subjective rights of citizens, the restoration of violated rights, then the concepts are not identical and "law enforcement" does not include "human rights activities", since the first is carried out everywhere and always, is expressed in a passive form (by consolidating the norms of law, establishing prohibitions and liability for their violation), while the protection of the rights, freedoms and legitimate interests of subjects of law is possible only in violation of the law and only in an active form (by going to court, making a decision, seizing property, etc.) [4, p. 38 - 46].

We believe that the correct approach to the relationship between the concepts of human rights activity and law enforcement activity can be developed only taking into account the origins and content of human rights activity, as well as law enforcement. Of course, one can completely equate human rights and law enforcement activities, but only if the state is considered the only demiurge of the right, and all the right is reduced to the normative acts it creates.

If law is understood as something more, namely a process that begins with legal needs and ends in the corresponding legal order, where the legal norms enshrined in normative acts play the role of an undoubtedly important, but intermediate link, then the protection of law conceptually acquires a wider and deep meaning, covering all links of this process.

Since law, understood in this sense, has always been, is and will be the business of the people, of all segments of the population of a country, where the state plays the role of a separate governing link derived from the people, then the people themselves will be the main real subject of human rights protection.

As for law enforcement, it was and will be the business of primarily state structures, mainly special law enforcement agencies, which the people entrust with the implementation of certain functions associated in this case with protecting against violations of the current legislation, while retaining full power in the country.

Therefore, the protection of human rights, human rights protection and protection of law, law enforcement, which have a similar content as types of social activity, do not completely coincide with each other. They overlap in the part where the activities of law enforcement structures ensure the protection and, accordingly, the protection of human rights in cases of detection of violations in this area and the implementation of relations of legal responsibility.

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自然科学成果在法医学研究中的应用
APPLICATION OF THE ACHIEVEMENTS OF NATURAL SCIENCES IN FORENSIC RESEARCH

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抽象的。 研究主题的相关性在于，犯罪学从事实物证据的收集和研究。近年来，由于引入了物理，化学和分析化学的各种元素，它取得了长足的进步。 由于它们在各种检查中的使用，它们得到了成功的发展（轨迹学，生物学，法医学）。

有时，化学成分的研究对获得有关犯罪及其参与者的重要信息有积极的作用。 在创伤检查过程中，有必要仔细检查痕迹，包括普通眼睛看不见的痕迹。 为此，使用由于自然科学的发展而获得的技术手段和材料。

关键字：犯罪学，物理学，力学，特殊知识，自然科学，科学交流。

Abstract. *The relevance of the research topic lies in the fact that criminalistics is engaged in the collection and research of physical evidence. In recent years, it has made significant progress due to the introduction of various elements of physics, chemistry, and analytical chemistry. Due to their use in various examinations, they are successfully developing (tracological, biological, forensic).*

Sometimes the study of the chemical composition has a positive effect on obtaining important information about the commission of crimes and their participants. During the trasological examination, it is necessary to carefully *examine the traces, including those invisible to the ordinary eye. For this purpose, technical means and materials obtained as a result of the development of natural sciences are used.*

Keywords: *criminalistics, physics, mechanics, special knowledge, natural sciences, communication of sciences.*

Introduction

Criminalistics (and not only it) can be quite taken for a mathematical science simply because it, in most cases, uses mathematical methods. Even if the "mathematization" of criminology begins to be applied at a more increasing pace and in a more global sense, criminology will still be (and will be) a legal science, even in this case. This situation is similar to the use of data science in criminology, such as information theory, etc.

The interaction of criminology with the natural and technical sciences does not mean that these sciences are absorbed and included in their content by criminology, or, on the contrary, they are absorbed by criminology. However, such opinions are sometimes expressed. For example, some criminologists in European countries believe that forensic medicine, psychiatry and chemistry help in the fight against crimes. Our domestic criminologists do not agree with these opinions and understand criminology and forensic psychiatry as a branch of the "mother" science that serves in the fight against crime through its data.

Forensic science takes this scientific data into account when developing practical recommendations.

So, for example, when formulating strategies for examining corpses at the scene of an accident, they take into account the features of the phenomenon of corpses and their changes over time, the signs allow us to judge damaged weapons; when formulating investigations of murders, rapes, corpses, these data are taken into account [2, p.63].

Similarly, the use of certain medical and chemical methods in criminology does not, in accordance with its provisions, apply to certain sections of criminology or to this type of practice as part of forensic science, such as forensic medicine or forensic examination.

Purpose of the study – to establish the current issues that arise in forensic activity, including forensic experts, and after analyzing individual sciences that are closely interrelated with criminology, to suggest ways of their mutual integration. The study is intended to identify certain positive results obtained in a number of natural sciences that are used for forensic purposes.

Materials and methods

The methodological basis of this research is based on the general scientific dialectical method of cognition, as well as on the use of structural-functional, system-structural, comparative-legal, formal-legal, and other particular methods of scientific cognition.

Results and discussion

Scientific and technological progress needs to increase the interaction of criminology not only with the natural and technical sciences, but also with their special areas. Such a field will include more and more new sciences, such as bionics, quantum electronics, cybernetics, biophysics, etc. "Feedback" shows how the advances of criminology have begun to be applied in other sciences: the sciences of archaeology, archaeology, paleopathology, etc.

Chemistry, physics, physical chemistry, electrical engineering, material resistance, metal science, etc., will be actively used in forensic technology. Their influence on tactics and methods is applied through the use of technical means. According to the synthetic nature of criminology, the result of integrating the achievements of other natural sciences and technical sciences into it is a huge introduction to them within their subject matter and content (even in the once traditional "purely forensic" fields, such as fingerprinting, microscopic visualization, document technology and forensic examination, etc.). At a time when forensic technology and forensic expertise are just emerging, they combine the advantages of natural and technical sciences. For example, portable solid-state lasers, vacuum deposition of metals, and various chemical reagents are used to detect potential mudra [1, p.98].

Without the use of electronic scanning microscopes, it is now difficult to imagine the detection and investigation of particles and microcracks. The method of research of documentary materials is based primarily on physical and chemical methods of research (X-ray, molecular spectroscopy, X-ray diffraction analysis, chromatography). It should be noted that the collection and study of forensic objects is carried out with the introduction of generally recognized methods and techniques used in the fundamental natural and technical sciences, and (mainly) with the introduction of deliberately created forensic techniques, taking into account the special circumstances of the object-the possibilities of physical evidence and methods.

Forensic and optical microscopes are used for forensic examination. They consist of a lens and an eyepiece. The magnifying lens produces multiple images. The most accurate will be the actual image. It can be displayed on a computer, thanks to technical means.

In an imaginary image, it allows a certain percentage of error, because our consciousness tries to see what it wants. Therefore, the expert sees the continuation of the optical rays, but not the rays. A stereo microscope. Its difference from an optical microscope is that the image is always straight, and this eliminates the possibility of errors in the analysis. The expert will see a clear, not ambiguous picture. Electronic microscope. It will be used in the study of objects to determine their special properties.

The image is formed due to the influx of electrons. It is literally impossible to see this, as a result, the electron beams fall on special screens.

For more detailed results of the examination, special methods are used, which will imply the presence of special knowledge in the field of physics: Color Separation. Specialists use light filters to increase the contrast. This method will be used for photo-portrait examination. UV illuminators.

This method is used if the traces disappear under infrared radiation or the traces are indistinct. These will be traces of blood or traces of fingerprints. With the right lighting, they will be visible. Radiography. This method is used to detect traces on metal objects (for example, inside a revolver or on a broken lock).

The electrolytic method will be used when detecting traces of pressure in a metal object. The criminal goes to the trick and tries to return it to its original state or paint it over.

This method helps to determine whether a given item has been exposed to external influences. For example, these are broken auto numbers. Molecular spectroscopy.

It will be used to study the texture of materials and substances. When traces of unknown substances are found at the crime scene, their samples are taken, and then subjected to examination.

Such traces can be absolutely anything-medicines, paint, gasoline, engine oil, etc.

Conclusion

We see that criminology and physics are strongly linked. Most of the expert research is carried out through physical methods, and their results serve as a solution to many forensic problems and tasks.

For the analysis of physical evidence (photos, personal belongings, jewelry, etc.), a technique is used, whose principle of operation will be based on the laws of physics.

In order to avoid errors in the conduct of examinations, employees are required to have special knowledge, which is given at the higher chemical and physical-mathematical education.

It should be noted that modern technical means of forensic tasks, as a rule, are carried out on the basis of orders from forensic scientific services of special research institutions, machine-building enterprises, production units (radio electronics, optics, etc.) [3, p. 122].

Much can be said about the interaction of criminology. The provisions of ethics, logic, psychology, and philosophy are extensively used to create an individual forensic teaching.

Criminology can be safely attributed to the integrated science. It makes extensive use of the findings of scientific disciplines and then applies these findings to its potential.

Criminalistics widely shares its own achievements, knowledge, and results with other fields of science.

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从社会教育信息化到数字化

FROM INFORMATIZATION OF SOCIETY AND EDUCATION TO DIGITALIZATION

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注解。 本文讨论了教育信息化的关键问题，这是社会数字化的前提。 在教育中引入信息处理工具，信息和通信技术，数字技术。 为了在社会和教育信息化领域实施统一的国家政策，在国家独立时期，采取了许多解决信息化和数字化问题的方案。

关键字：教育信息化，数字化，信息和通信技术，培训组织。

Annotation. *The article discusses the key issues of informatization of education, the prerequisites for the digitalization of society. The introduction of information processing tools, information and communication technologies, digital technologies in education. In order to implement a unified state policy in the field of informatization of society and education, during the period of independence of the state, many programs were adopted that solve the problems of informatization and digitalization.*

Keywords: *informatization of education, digitalization, information and communication technologies, organization of training.*

Today the Republic of Kazakhstan has entered the period of digitalization of society and economy. The informatization of the education system is a key condition for the digitalization of society and requires priority provision of resources.

All kinds of information processing tools, information and communication technologies are among the most significant factors ensuring the functioning of the world markets for knowledge, capital and labor. The introduction of information processing tools, information and communication technologies in all spheres of human activity began to be called "the process of informatization of society." The dynamic development and dissemination of information and communication technologies affects the way of life of people, brings with it dramatic changes in science and education, culture and socio-economic sphere of society, and as a result, society began to be called "information". Digitalization currently involves informatization, automation, robotization and artificial intelligence, which are constantly being modified, subject to dynamic changes, subject to integration. Informatization is a prerequisite for the digitalization process [1].

Analyzing research on the problems of informatization of society, one can single out the main features:

• creation of technologies for the formation of electronic information resources;

• organization of citizens' access to electronic information resources;

• the growing role of infrastructure (telecommunications, transport, organizational) in the economy;

• development of the information industry, which includes the developers of the audiovisual content of the telecommunications industry and manufacturers of software components and consumer electronics, etc.;

• creation of information products and their existence, development of the information services market.

The information society puts forward new requirements for the level of training of specialists of any profile in the use of information technologies, which is reflected in the informatization of the education system. Informatization of education is a purposefully organized process to ensure the methodology of the educational system and the optimal use of IT, focused on the goals of learning and education.

In order to implement a unified state policy in the field of informatization of society and education, during the period of independence of the state, many programs were adopted that solve the problems of informatization. The implementation of the tasks of state programs has shown the importance of computer, telecommunication equipment and technologies in the life of society. Possession of information and telecommunication technologies is becoming in the modern world on a par with such qualities as the ability to read and write, and a prerequisite for every individual. The acquired knowledge and skills in the future can largely determine the ways of development of society [2].

Informatization in the field of primary education of our country began to be carried out in accordance with the Program of informatization of the Kazakh SSR for 1991-1995 and for the period until 2005 (1991) and the Program of informatization of educational institutions of primary and secondary vocational education of the Republic of Kazakhstan (2001). By 2000, in spite of the very difficult socio-economic situation of the state, 100 percent computerization of secondary schools in our country was completed. A central communication center was created, to which the central office of the Ministry of Education and Science and telecommunication centers of the regional education departments were connected.

One of the leading directions of informatization of the education system is the development and implementation of an information system for managing secondary education (MSE).

The creation of the MSE system provides not only for the automation of routine work on processing statistical information for making management decisions, but also for further development in order to solve the problem "Creation of a single information space of the Republic of Kazakhstan", formulated by the President of the Republic of Kazakhstan. The MSE server will provide an opportunity to obtain information available for wide publication via the Internet about the education system in the Republic of Kazakhstan, educational institutions, basic government and regulatory documents related to education in the Republic of Kazakhstan. Any employee of the education system will be able to promptly receive clarifying or additional information (consultation) on emerging issues. The publication on the server of the Ministry of materials for advanced training of teachers will lay the foundations of distance education for the secondary education system using Internet channels. On the server of the Ministry, it may be possible to publish material of the teachers of the Republic of Kazakhstan on the exchange of experience in the use of computer tools in the educational process.

The education management information system in the Republic of Kazakhstan is inherently a multi-level system:

level 1 - educational institutions, which are a source of information, which is prepared in accordance with existing forms of statistical reporting, as well as in connection with requests from higher institutions (district and regional Departments, the Ministry);

level 2 - regional Departments of Education, which, receiving information from level 1, process and transmit it to a higher level - Regional Departments. In addition, district departments can be the source of requests from level 1 for district-specific information;

level 3 - regional Departments, receive information from the second and partially the first level and transfer it to the level of the Ministry. Oblast departments can also be the source of requests for area-specific information from lower levels;

level 4 - Ministry of Education of the Republic of Kazakhstan, whose employees process and analyze information received from Regional Departments and generate requests for information from subordinate institutions.

At the level of the Ministry, the hardware and software implementation of the system should ensure the work of the employees of the Ministry in the CLIENT-SERVER architecture. This architecture implies the organization of a local network (with a network bandwidth of 100 Mbps) and the presence of a dedicated data server (i.e., a database server). The data server should allow (taking into account the possibility of expansion) the simultaneous operation of several dozen users, while providing mechanisms to ensure data integrity, safety and recovery of data in case of malfunctions, authorized access to data and separation of access rights to data for various categories of users. Hardware and software implementation of the ministry's local network should allow the development of the network in the future, i.e. connection of additional workplaces to the network, the use of other modern office software systems not foreseen in the project, without reducing productivity in solving problems of education management information systems and without requiring significant investment in equipment modification.

Informatization of education has provided the following opportunities:

- participation of each student in an active cognitive process, and not in passive mastery of knowledge;
- selection of modern information and communication technologies that correspond to educational technologies and educational processes.
- creation of information portals (databases and data banks, electronic libraries, etc.) aimed at solving educational problems;
- free access to information resources around the world;
- joint work on cooperation in solving various problems;
- extensive virtual communication with other users.

By the decree of the President on December 12, 2017, the State Program "Digital Kazakhstan" was introduced. The basis for the development of this program is the Address of the President of the Republic of Kazakhstan N.A. Nazarbayev "The third modernization of Kazakhstan: global competitiveness" dated January 31, 2017. As the Head of State noted in his Address: “We must cultivate new industries that are created using digital technologies. This is an important and complex task. It is necessary to develop in the country such promising industries as 3D printing, online commerce, mobile banking, digital services, including in healthcare and education, and others. These industries have already changed the structure of the economies of developed countries and have given a new quality to traditional industries."

Digitalization can be viewed as one of the most important means of reforming the entire education system.

In the era of digitalization of society, changing the goals and content of training is the leading link in this process. Technological re-equipment of the educational process, the emergence of new methods and organizational forms of training are derivative, ensuring the achievement of the set goals. The change in the content of training is in several directions, the significance of which changes as the digitalization process develops.

As stated in the State Program “Digital Kazakhstan”, the first direction will be associated with updating the education system in accordance with the best world practices: “New education will meet the needs of the digital economy, with an emphasis, first of all, on skills in information analysis and the development of creative thinking, rather than learning facts and formulas. Increasing digital literacy in secondary, technical and vocational, higher education."

In conclusion, I would like to note that our society has a certain potential in the field of application of information and telecommunication technologies in education. Measures are needed to create a developed digital environment of society, considered as a combination of technical and technological, socio-political, economic and socio-cultural components, factors and conditions under which information and knowledge become a real and effective resource for the socio-economic and spiritual development of society.

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前庭体操改善弱智初中生身体素质和功能状态的方法
IMPROVEMENT METHODOLOGY OF PHYSICAL FITNESS AND FUNCTIONAL STATE OF JUNIOR SCHOOLCHILDREN WITH MENTAL RETARDATION THROUGH VESTIBULAR GYMNASTICS

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抽象的。智力低下儿童前庭稳定发展的相关性是由于以下事实：矫正教育学的许多专家将他们的声发育异常的主要特征与前庭系统的病理学联系起来[2]。人在运动动作控制过程中非常重要的基本协调能力是前庭稳定性。在现代适应性体育实践（APE）中，研究和实验证实创新手段和方法来优化弱智初中学生的身体素质和功能状态似乎是及时和紧迫的。目前，对于在APE智力低下的初中学生班级中广泛应用在医学，神经心理学，言语治疗等方面的前庭体操，人们尚无了解。因此，对该技术的描述对于与这类孩子一起工作的专家而言必不可少且有用。

关键词：弱智初中生，前庭稳定性，前庭体操。

Abstract. *The relevance of vestibular stability development in children with mental retardation is due to the fact that many specialists in correctional pedagogy associate the leading characteristics of their dysontogenesis with the pathology of the vestibular system [2]. The very important, basic coordination ability of a person in the process of motor actions controlling is vestibular stability. In modern practice of adaptive physical education (APE), it seems timely and urgent to research and experimentally substantiate innovative means and methods for optimizing physical fitness and functional state of junior schoolchildren with mental retardation. At present, there is no understanding of how to apply vestibular gymnastics, which is widely used in medicine, neuropsychology, speech therapy, etc., for classes with junior schoolchildren with mental retardation in APE. Therefore, the description of the technique will be essential and useful for specialists working with such children.*

Keywords: *junior schoolchildren with mental retardation, vestibular stability, vestibular gymnastics.*

Introduction

In the scientific field of special pedagogy and adaptive physical education there is a large quantity of data, indicating a high corrective potential of coordination exercises. It has been proven by practitioners that by developing the coordination capacity of children with disabilities, it is possible to influence the correction of their deviations [3]. However, the development of vestibular stability in children, especially with mental retardation, has not yet been sufficiently tested. In this connection, the development of methods for optimizing the physical fitness and functional state of junior schoolchildren with mental retardation through vestibular gymnastics is updated.

Methodology and organization of the research

The purpose of our research is to develop and scientifically support the optimization methods of physical fitness and functional state of junior schoolchildren with mental retardation through vestibular gymnastics. In order to achieve this goal, we have used the following methods: analysis and synthesis of scientific and methodological data; questionnaires; methods for evaluating the development of vestibular stability; pedagogical experiment; mathematical and statistical analysis of experimental data. Our research was carried out at schools of Volgograd during the academic year 2019-2020 with students of the 3rd grade (9-10 years) who have the decision of the psychological-medical-pedagogical commission with recommendations for teaching on the educational program of AGEP FSES PGE, options 7.1 and 7.2. Eighty people (40 boys and 40 girls) [3] were examined.

Research results and their discussion

In order to develop a pedagogical process, set and implement educational activities, it is necessary, first of all, to know the health, mental, physical and personal characteristics of pupils with developmental disorders, because the characteristics of pedagogical impact subject are the starting point of any educational process. We examined the morphofunctional state, vestibular stability, physical, mental and stabilizing characteristics of junior schoolchildren with mental retardation. The data obtained from the research were used in the development of a method to optimize the physical fitness and functional state of junior schoolchildren with mental retardation through vestibular gymnastics. The structure of the experimental methodology is shown in figure 1. From September to December 2019 experimental training was provided twice a week in an after-school form of 40 minutes and once a week in a rhythmic form. From January to March 2020, classes were held 3 times a week in the form of a physical education lesson and once in the form of a rhythmic lesson. From April to May, classes were held

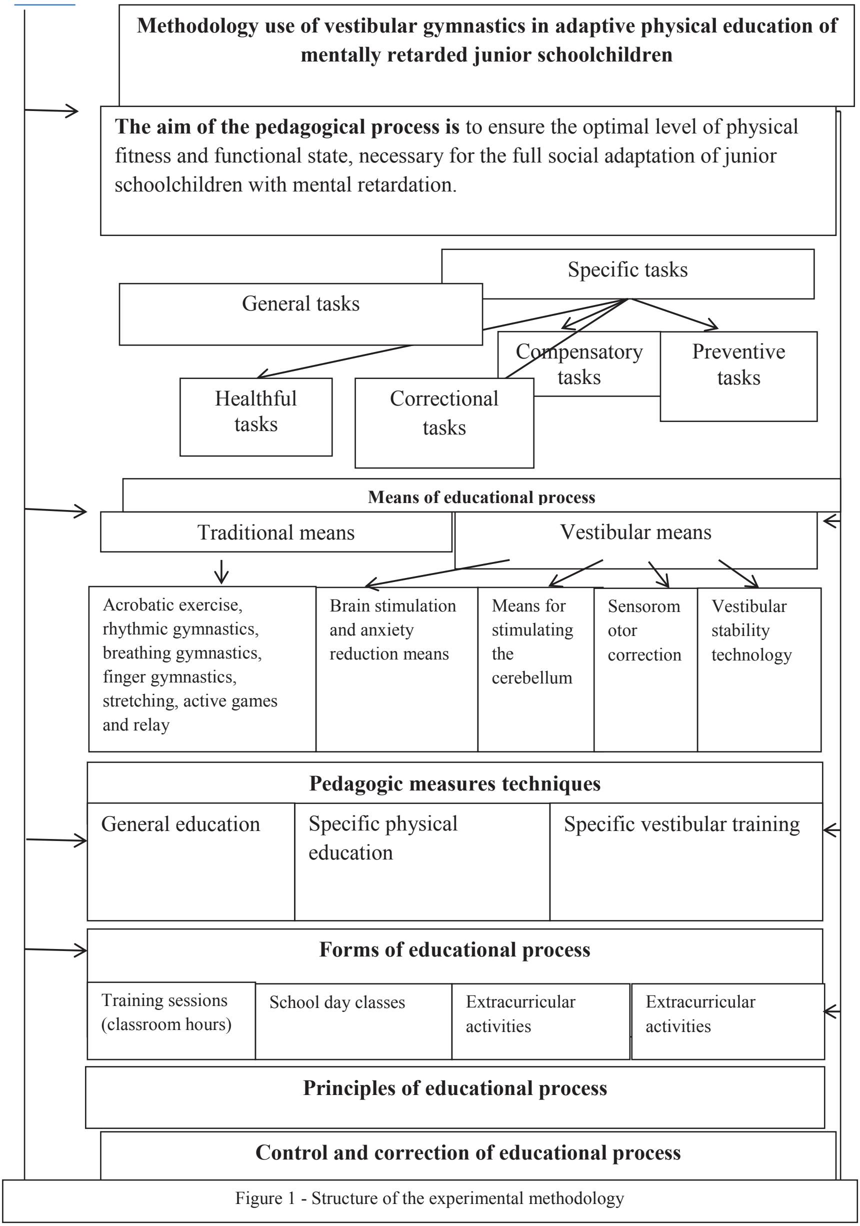

Figure 1 - Structure of the experimental methodology

Figure 1 - *Structure of the experimental methodology*

3 times a week for 40 minutes using information technology in ZOOM training mode. The control group of junior schoolchildren with mental retardation trained in traditional APE techniques at physical education classes three times a week, mastering the program material consisting of the following sections: athletics, cross-country training, gymnastics with elements of acrobatics, active games; the variation part was represented by a section of active games based on basketball [1]. The variation part of the experimental group of junior schoolchildren with mental retardation completely included the program material on the method of vestibular gymnastics developed by us. The specific features of the technique are the exercises of vestibular gymnastics.

The effectiveness of the developed methodology was tested in a pedagogical experiment. At the beginning of the experiment, the level of vestibular resistance was determined in children of control and experimental groups. The data revealed that the level of development of the vestibular function did not differ significantly (P>0.05) among the junior schoolchildren with mental retardation.

The following tests were chosen to determine the vestibular stability: Phirileva test, going 1 m straight after three rolls forward; distance throwing; dynamic balance testing: bench balancing (P. Hirtz), gymnastics bench turns (P. Hirtz); static balance testing: Romberg test and Yarotsky test.

After the experiment, it was found that the indicators of vestibular stability had changed in both groups, but in the experimental group (Tab.2) there was a larger increase than in the control group (Tab.1).

Table 1 *– Trend analysis of vestibular stability of junior schoolchildren with mental retardation – control group.*

Control tests	**Gender**	**Control group (n=40)**				
		Baseline data	**Finite datum**	**Increase %**	**Test**	**p**
U- test						
Phirileva test (b)	G	3,9±	3,6±	10,1%	101,5	p<0,05
	B	4,9±	4,7±	5,7%	134	p<0,05
T- test						
Stability after 3 rolls forward, (s)	G	10,8±	10,6±	3,2%	1,6	p>0,05
	B	10,9±	10,6±	2,6%	1,4	p>0,05
Long-range throw of a tennis ball, (м)	G	8,4±	9,4±	8,3%	2	p>0,05
	B	13,8±	14±	0,2%	0,3	p>0,05
Dynamic balance						

Benchbalancing, (s)	G	10,6±	10,5±	1,5%	1,4	p>0,05
	B	10,4±	10,1±	3,3%	1,9	p>0,05
Gymnastics bench turns, (quantity)	G	2,8±	2,8±	1,3%	0,3	p>0,05
	B	2,9±	2,9±	3,8%	0	p>0,05
Static balance						
Romberg test, (s)	G	9,9±	9,7±	8,6%	0,3	p>0,05
	B	8,4±	9±	4,2%	1,2	p>0,05
Yarotsky test, (s)	G	7,6±	7,2±	10,9%	0,8	p>0,05
	B	5,7±	6±	1,4%	0,6	p>0,05
Note: G – girls, B – boys, U- Mann-Whitney U test, T- Student t-test.						

***Table 2 –** Trend analysis of vestibular stability of junior schoolchildren with mental retardation – experimental group.*

Control tests	**Gender**	**Experimental group (n=40)**				
		Baseline data	**Finite datum**	**Increase %**	**Test**	**p**
U- test						
Phirileva test (b)	G	4±	2,8±	44,6%	0	p<0,05
	B	5,1±	3,3±	56,7%	0	p<0,05
T- test						
Stability after 3 rolls forward, (s)	G	10,7±	6,6±	68,6%	12,5	p<0,05
	B	9,8±	7,8±	29%	5,5	p<0,05
Long-range throw of a tennis ball, (м)	G	7,6±	9,1±	14,5%	2,4	p<0,05
	B	14,8±	16,6±	9,4%	2,5	p<0,05
Dynamic balance						
Benchbalancing, (s)	G	10±	8,9±	13,6%	9,8	p<0,05
	B	10±	8,4±	19,3%	10	p<0,05
Gymnastics bench turns, (quantity)	G	3±	4,1±	25,5%	4,8	p<0,05
	B	3±	4±	22,4%	4,5	p<0,05
Static balance						
Romberg test, (s)	G	10±	13,5±	24,8%	5,1	p<0,05
	B	9,2±	11,5±	18%	3,1	p<0,05
Yarotsky test, (s)	G	7,2±	9±	16,2%	3	p<0,05
	B	5,4±	6,5±	13,1%	2,2	p<0,05
Note: G – girls, B – boys, U- Mann-Whitney U test, T- Student t-test.						

In the control group (Tab.1) there was an improvement in the Phirileva test. The observed increase was significant and reliable (P<0,05). The values of the other indicators in children of the control group have also improved, but these differences are statistically unreliable (P>0,05). A similar pattern was observed in the analysis of the performance of the Phirileva test and in the experimental group. In the experimental group of children, all other indicators of the targets: going 1 m straight after three rolls forward; distance throwing; dynamic balance testing: bench balancing (P. Hirtz), gymnastics bench turns (P. Hirtz); static balance testing: Romberg test, Yarotsky test during pedagogical experiment, the researched indicators have statistically increased with confidence (P<0,05) while in the control group the differences between average statistics were not reliable (P>0,05).

Conclusions

Development of a method for using the vestibular gymnastics for junior schoolchildren with mental retardation is caused by the urgent need to further significantly improvement the effectiveness of healthful, educational, correctional and preventive school work using modern APE means. The method of optimizing the physical fitness and functional state of junior schoolchildren with mental retardation by means of vestibular gymnastics improves their morphological, motor and psychophysical state and brings them closer to available psychological and physical standards for that age.

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有必要具体化掌握艺术体操中组合元素的方式

JUSTIFICATION OF THE NEED TO CONCRETIZE THE WAYS OF MASTERING COMBINED ELEMENTS IN RHYTHMIC GYMNASTICS

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抽象的。 在艺术体操中掌握组合元素的方法主要是由于其实施技术的内容。 后者的特征是运动的生物力学参数，它预先确定了协调困难，以及身体素质和能力的体现程度。 在这种情况下，根据保持平衡的规律，支撑的面积，整体重心的高度，缩回连杆的杆，元件的振幅，车身与垂直方向的偏差，从一个元素过渡到另一元素时工作腿的方向等是完成第二个元素的难度的客观指标。 掌握组合元素时，必须考虑所有上述因素。

关键字：组合元素，表演技术，运动学特性，比赛规则，艺术体操运动员。

Abstract. *The methods of mastering the combined elements in rhythmic gymnastics are primarily due to the content of the technique of their implementation. The characteristics of the latter are biomechanical parameters of movement, which predetermine coordination difficulties, as well as the degree of manifestation of physical qualities and abilities. In this case, in accordance with the laws of maintaining balance, the area of support, the height of the overall center of gravity, the lever of the retracted link, the amplitude of the element, the deviation of the body from the vertical, the direction of the working leg during the transition from one element to another, etc. are objective indicators of the difficulty of completing the second element. All of the above factors must be taken into account when mastering the combined elements.*

Keywords: *combined elements, performance technique, kinematic characteristics, competition rules, rhythmic gymnast.*

As in many other sports, competition rules in rhythmic gymnastics change every four years, after the games of the Olympics. A new cycle of development of the sport begins, designing the process of training gymnasts and updating the content of their competitive programs. The analysis of the international rules for rhythmic gymnastics from 2000 to 2020 showed that in the process of long-term cyclicality there have been significant changes in the requirements for the content of competitive programs [2 P.215]. Significant changes in the requirements for the quantitative and qualitative content of competitive programs have made adjustments to their compositional structure. And since, according to the current competition rules, the combination of series of elements has not been evaluated since 2009, the number of elements in one type of all-around from 30 elements (2000) decreased to 9 elements (2021), competition programs until 2019 contained mostly isolated elements. However, the constant complication of competitive compositions is one of the most important trends in the development of rhythmic gymnastics. In this connection, at large tournaments, athletes become prize-winners who accurately perform the most difficult original compositions, in which the composition of 2-3 elements of increased difficulty began to be included more and more often [1]. In this connection, a tendency was revealed to increase the difficulty of competitive compositions with various objects based on the inclusion of combined elements from one structural group such as "jump + jump", "balance + balance", "turn + turn" into the exercise. The analysis of the competitive activity of highly qualified gymnasts showed that only individual gymnasts include in their competitive compositions combined compounds, consisting of elements of high difficulty of various structural groups such as "turn + jump", "turn + balance", "jump + balance" or "tilt + jump "," tilt + balance "and" tilt + turn". Thus, the aim of the study was to concretize effective methods of technical training, taking into account the factors that predetermine the quality of mastering the combined elements in rhythmic gymnastics.

To study the methods of mastering the combined elements in rhythmic gymnastics, used in the modern practice of rhythmic gymnastics, a survey of specialists was conducted. The survey found that:

- the inclusion of combined elements in competitive programs increase the entertainment of the compositions (100%). At the same time, first of all, elements that include turns (81.8%), in second place are jumps and balances (9.1% each);

- first of all, the choice of elements by coaches for mastering mixed elements is the physical and technical readiness of gymnasts to perform them (65.2%);

- it is preferable to combine elements of only one structural group (balance + balance, turn + turn, jump + jump) (85%); the most rational combination of elements from different structural groups is jump + balance and turn + balance;

- from the table of structural elements of the rules of competitions in rhythmic gymnastics 2017-2020, coaches believe that it is more effective to combine those elements that gymnasts perform in their competitive compositions and do them at a high technical level (67%); 13.2% - believe that gymnasts will cope with such elements as combining elements with a value of 0.1 - 0.3 points. For gymnasts of the stage of higher sportsmanship, in order to gain the highest difficulty of the exercise, coaches prefer a combination of elements of increased complexity, that is, from 0.5 points and more (12.1%);

- selecting the technical work of the subject during the performance of the combined elements, the respondents are guided by the direction of the subject in relation to the element being performed (34.1%); 37.3% - focus on the plane of the object and 28.6% - focus on the axis of the element;

- errors when performing combined elements: fuzzy and not fixed form of one of the elements + error when moving from one element to another (49.3%); then follows - support on the heel during balance during the transition to another element + sliding movement during the element (32.8%); the axis of the body is not in a vertical position or at the end of the element 1 step + bouncing during the element is made (17.9%).

The results of the survey revealed the need to search for more effective ways of mastering the apparatus work combined with difficult coordination in rhythmic gymnastics. Thus, there is a contradiction between the need to master the combined elements at the present stage of the development of rhythmic gymnastics and the lack of guidelines for the content of technical training, on the other hand, in coaching practice.

In this regard, a correlation analysis was carried out aimed at specifying the objective factors that determine the technique of performing the combined elements.

Thus, various degrees of relationship between the kinematic characteristics of the combined elements balance + turn and jump + turn were revealed. For the analysis, on the basis of pedagogical observation, isolated elements in competitive compositions with the highest value, which are most often performed by athletes, were selected: step jump; balance "Italian fouette"; leap anturnan touching; front horizontal balance with an amplitude of at least 180°; rear vertical balance with an amplitude of at least 180°; turn of the fouetté; balance of attitude; turn in the position of rear horizontal balance; back balance on the toe of one leg with a backward tilt of the other forward and upward with an amplitude of at least 180°. The Kinovea licensed program was used to study the kinematics of movements by individual body segments using the method of non-contact analysis of video sequences of movements. The following indicators were determined: the duration of the execution of the first and second forms of the element in the phase of realization of movement and the transition between them (t, s); ankle angle (∠°); knee joint angle (∠°); angle of the hip joint (∠°); angle of the hip joint (thigh and body

(∠°)). The technique of execution of the listed elements was assessed with the help of an expert assessment, deductions in points were applied according to the FIG rules 2017-2020. The study involved 6 highly qualified athletes from Lesgaft National State University of Physical Education, Sport and Health.

During the correlation analysis of the kinematic characteristics of the combined element jump + balance, it was revealed that the duration of the jump in the implementation phase affects the angle of flexion in the knee joint upon landing (*r*=-0.89), i.e. the duration of the jump determines the quality of its execution and, as a result, the correct landing, contributing to the transition to another element (balance) without additional auxiliary actions, the return to balance is carried out due to extension in the knee joint. Maintaining a dynamic posture in the implementation phase when performing jumps will contribute to the correct position of the body in space during the transition to the implementation of the next element, as the relationship between the angle of the kinematic chain trunk-pelvis-thigh was revealed both in the jump and in the position of transition to balance, then is at the moment of landing (*r*=0.83). The gymnast's actions during the transition from a jump to the next balance, to a large extent determine the quality of its implementation. For example, when performing the transition from a step jump to the Italian fouette balance, the following correlations were found: the angle of flexion in the knee joint upon landing has a relationship with the duration of the Italian fouette (*r*=-0.83) and the work of the ankle joint during its implementation (*r*=0.87) (table 1).

Table 1 – *The relationship between the kinematic indicators when performing the combined element: step jump + balance "Italian fouette" (n=6)*

		Transition						Form II					
		1	2	3	4	5	6	1	2	3	4	5	6
Form I	1	0.14	-0.60	**-0.89**	-0.20	-0.71	0.50	0.54	-0.66	0.70	0.20	0.26	0.03
	2	0.81	-0.04	-0.47	0.1	-0.44	0.51	0.50	-0.44	0.76	0.41	0.76	-0.39
	3	-0.44	-0.27	0.27	-0.36	0.64	0.51	-0.64	0.30	0.01	0.64	-0.21	0.64
	4	-0.16	-0.79	-0.27	0.07	0.24	0.51	0.01	-0.24	0.41	0.67	0.07	**0.90**
	5	0.65	0.37	-0.26	0.26	-0.60	0.50	0.54	-0.3	0.24	-0.26	0.43	-0.66
	6	0.50	0.50	0.50	0.50	0.50	1,00	0.50	0.50	0.51	0.50	0.50	0.61
Transition	1							0.37	-0.14	0.67	0.31	**0.94**	-0.31
	2							-0.49	0.71	-0.53	-0.43	-0.03	-0.49
	3							**-0.83**	**0.87**	-0.67	-0.14	-0.26	0.03
	4							0.60	-0.60	-0.10	-0.09	-0.14	0.20
	5							**-0.89**	**0.83**	-0.30	0.31	-0.03	0.371
	6							0.50	0.50	0.51	0.50	0.50	0.61

Note: 1 - t (sec); 2 - Ankle joint (∠°); 3 – Knee joint (∠°); 4 - Hip joints (∠°); 5 - Hip joint and body (∠°); 6 - Execution penalty (points); tcr. = 0,85 (p<0,05)

A long transition is usually associated with additional compensatory actions and, as a result, the athlete does not show the amplitude of balance movement to the proper degree - the element may not be counted (the correlation coefficient between the duration (s) and the angle in the hip joint is 0.94).

A similar tendency can be traced when performing a step jump in conjunction with back balance on the toe of one leg with a backward tilt, the other forward and upward with an amplitude of at least 180°. In this connection, the methodological foundations for the implementation of the combined element should be based on the technique of performing the transition from one element to another (table 2).

Table 2 - *Methodological foundations for performing a combined element: a split step jump and back balance - on the toe of one leg with an inclination backward, the other forward and upward with an amplitude of at least 180°*

Leap step	Element description	When jumping with a step forward from a short "explosive" take-off run, the left/right is repulsed, sending the free leg (right/left) forward and upward as if jumping over an obstacle. In flight, the angle of separation in the hip joint is 180°.
	Basic element execution basics 	The push-off by the supporting leg during such jumps does not have a pronounced stopping character, the supporting leg is placed on the floor from the toe and then gently lowered "roll-over" over the entire foot. At the beginning of repulsion, the shoulders do not lean back, but rush forward. Hand swing movements are relatively free in nature and depend on the external design of the jump. They are directed in the direction of departure. In flight, the jump position is fixed. Landing occurs on the swinging leg, with pronounced shock absorption and maintaining forward movement. The quality of this element is moderately dependent on the electrical activity of the transverse abdominal muscles, the quadriceps femoris of the swing leg and the gluteus maximus muscle. When taking off, the greatest indicators of electrical activity were recorded in the rectus muscle of the left thigh, this is due to the implementation of the repulsion of the left leg from the support to ensure flight form. In the implementation phase, the highest indicator of electrical activity was recorded in the trapezius muscle of the left side of the body. This is due to the demonstrated form in flight, in all the jumps listed there is a tilt or turn of the left side of the body.

Back balance - on the toe of one leg with a backward tilt of the other forward and upward with an amplitude of at least 180°	Element description	From a stand on toes, hands above, one step on the toe, swing the other forward. When the swinging leg reaches shoulder level, the torso begins to tilt back until the toes touch the heel of the supporting leg. In this case, the swinging leg continues to swing, reaching the maximum amplitude
	Basic element execution basics 	The moment the maximum amplitude is reached should coincide with the lowest point of the slope. Without lingering in the tilt position, the rise of the body immediately begins. In this case, the free leg, slightly lowering, adheres and remains at the level of the head after lifting the body, and then relatively slowly put on the half-toes to the supporting leg. Due to the backward bend, the overall center of gravity, the gymnast is located as low as possible, the angle of stability increases and the likelihood of imbalance decreases. When performing back balances, the tension of large muscle groups of the body is especially great.
Moving from one element to another	Technique of transition from one element to another	Coming to the support, it is necessary to soften the landing. Landing begins with a toe, and immediately, with tension, the lowering goes to the entire foot, and then the supporting leg is sequentially bent in the knee and hip joints. The cushioning is combined with a downward movement of the arms. Soft sequential bending of the body on the support reduces the negative acceleration that occurs when it comes to the support, and thus sharply weakens the impact. After depreciation, a transition is made to the execution of the next element in this chain of movements. In this case, the last phase of the jumping movement becomes the phase of preparatory actions for balance. After landing from a jump step onto the supporting right/left, straightening the supporting one and carrying the swing (left/right) "opening" and lowering the arms, there is a transition to a position close to vertical rear balance, without bending back. in the future, straightening and raising the leg higher and higher (and compensatory bringing the pelvis forward),
	Muscles that provide the transition from one element to another	At the final stage of the jump with a “split step”, the highest indicator of the average amplitude of turns of electrical activity was recorded in the rectus femoris muscle of the right leg. The reciprocity of pairs of muscles "straight femur and biceps", as well as "anterior tibial and gastrocnemius", "straight femur and gluteal", in accordance with the motor task solved at the stage of amortization, should have values slightly exceeding the norm (16%). When reaching balance, the muscles of the hip flexors of the moss leg, the muscles of the back, the muscles of the lower leg and the thigh of the supporting leg are most actively involved in the movement.

Balance and pivot should also be done together, without additional steps. It is rational to perform "force" on a turn from the front balance by swinging motion forward across the side. Qualitatively, the fulfillment of the first element, in this case the balance of "attitude", determines the rational transition to the turn. The following relationships were revealed: there is a high relationship between the angle of the ankle joint in the implementation phase and the angle in the ankle joint at the time of transition to the turn (*r*=9), which determines the quality of its performance (*r* = -0.82); there is also a relationship between angle in the hip joint in the "attitude" position and are rational by the transition to the turn (*r*=0.81); timely swinging movements during the transition to the turn, without lowering the hip, contribute to accurate reproduction of the amplitude of motion in the hip joint in the turn (not less than 180°) (*r*=0.81) (table 3).

Table 3 - *The relationship between the kinematic indicators when performing a combined element: balance "attitude" + rotation in the position of the rear horizontal balance with an amplitude of at least 180° (n = 6)*

		Transition						Form II					
		1	2	3	4	5	6	1	2	3	4	5	6
Form I	1	0.04	0.09	0.69	-0.31	-0.37	0.26	0.09	0.21	0.67	0.61	0.21	**-0.92**
	2	-0.41	**0.90**	0.67	0.41	-0.78	**-0.82**	-0.39	0.32	0.50	0.41	-0.62	-0.07
	3	0.37	0.36	0.40	-0.03	-0.53	0.34	-0.57	-0.05	0.75	0.79	0.28	-0.63
	4	0.35	-0.36	0.16	-0.53	0.09	**0.81**	0.05	-0.18	0.33	0.47	0.56	-0.70
	5	-0.67	0.16	0.36	-0.26	0.03	0.00	-0.36	-0.05	0.17	0.81	-0.38	-0.11
	6	-0.37	-0.02	-0.52	0.03	0.42	-0.32	-0.03	-0.42	**-0.80**	-0.47	-0.49	1.00
Transition	1							-0.12	0.05	0.33	-0.17	**0.81**	-0.37
	2							-0.34	-0.02	0.41	0.29	-0.62	-0.02
	3							0.15	0.04	0.49	0.39	-0.47	-0.52
	4							-0.58	0.75	0.44	0.05	0.19	0.03
	5							0.26	-0.18	-0.70	-0.30	0.24	0.42
	6							0.00	-0.23	-0.02	0.15	0.78	-0.32

Note: 1 - t (sec); 2 - Ankle joint (∠°); 3 – Knee joint (∠°); 4 - Hip joints (∠°); 5 - Hip joint and body (∠°); 6 - Execution penalty (points); tcr. = **0,85 (p<0,05)**

Thus, one of the ways to master the combined elements in rhythmic gymnastics is the high-quality implementation of the transition from one element to another. In the methodology for mastering the combined elements in rhythmic gymnastics, first of all, complexes of means for strengthening the ligaments in the hip joint should be included, since the elements in the ligament are most often performed in different planes and directions; leading combined exercises combining small jumps with balances and turns, due to the need to prepare the knee and ankle joint for landing and entering the element.

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学校图书馆的互联网代表处及其改进可能性的确定

INTERNET REPRESENTATIVE OFFICES OF SCHOOL LIBRARIES AND DETERMINATION OF THE POSSIBILITY OF THEIR IMPROVEMENT

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注解。　本文讨论了学校图书馆在Internet上的表示形式，每种类型都可以增强信息的表示形式和对信息的访问。 对物种本身的分析表明存在明显的特征错误，这将改善测试方向。
关键字：学校图书馆，互联网办公室，学校图书馆网站，博客圈，社交网络。
Annotation. *This article discusses types of Internet representation of school libraries, each of which enhances the presentation of information and access to it. The analysis of the species themselves representation marked characteristic errors, which will improve the test direction.*
Keywords: *school libraries, internet-office, school library website, the blogosphere, social networks.*

To deal with the specific types of representation, to obtain information about the status of Internet representation libraries allow us to draw conclusions analysis of the materials themselves forms of representation, and publications on the studied direction.Conducting research materials analysis revealed a major mistake that experts in the design and organization of web-representation of the school library and to formulate a set of recommendations and the steps that must be considered when creating and promoting school library representation of the information space.

So, we can safely say that today the idea of the library on the Internet - not a tribute to fashion trends and conscious form of work, dictated by time. One of information resources, the creation of which afford school librarian - a school library website designed to fill the gaps of information support of the needs of the library readers, business card, which tells about the possibilities and activities of the library.

The main disadvantages of existing sites, lies in the fact that the materials in the site are not structured, so that a row is information for all categories of visitors,On some sites, the content is aimed at administrators, librarians, not the students. It should immediately adopt a policy that the website created especially for the readers and not for themselves librarians, so user interests must first be taken into account in the formulation of the overall structure and strategy of the virtual resource content.

Also a little interesting materials for students and insufficient links to good resources for children and teens, and yet - they are the main consumers of library information. Materials presented on the site, do not always have the time coordinates. Insufficient informativeness, poor maintenance and updating of unprofessional design is also part of the school library websites shortcomings.There are also broken links in the site structure. Many sites are very rarely updated or not updated. A number of websites hosted on free hosting, not periodically runs. Information on individual sites located illogical way that it makes it difficult to search.

However, it can be assumed that the shortcomings seen more to do with lack of library staff of professional web designers and related professionals to establish and maintain a site than a misunderstanding of the importance of the issue and the reluctance to develop this direction.

The analysis of the organizational structure and content sites school libraries we identified a number of sections, which are present in most of them, and to publicize the work of school libraries and to improve reader service quality has allowed us to get a "typical" model content library site and determine the approximate structure and mandatory elements of the library site.

However, in spite of all the opportunities presented to the libraries with the introduction of web-sites, at the moment, for the successful implementation of the activity on the Internet, the library is not just enough to have your own website. The library should establish unimpeded dialogue with their readers, to take into account their opinion, constantly motivate their users.To help libraries come blogs, social networks, which can meet these requirements and further help the library develop in this direction.

Based on materials library blogs and a few publications, we conducted an analysis of the current state of the blogosphere and the library accounts in social networks.

Research has shown that many school libraries do not work in social media, which demonstrates the low level of computer literacy of the specialists or the lack of understanding of this group of workers of all the importance of the social networks of the library offices. In addition, it indicates a lack of methodological support this area of work on the part of municipal methodical service.

One of the main conditions for the attraction of visitors, and therefore the viability of library pages / groups - the frequency of publications. The study showed that there is no procedure and frequency of posting information on the web sites of school libraries.During the analysis, representation in the network, the frequency of appearance of a new library of content sites is once in 3-6 months. It should be recognized that at such a low renewability school library information pages / groups are of no interest to users of social networks, and therefore can not perform the tasks for which they were created. Web-representation should be maintained: work with the internal contents.

The degree of responsibility of work in social media is very high, as it is actively creates an image library, especially among young people. Interest in social networks users need to constantly maintain, placing the information on a daily basis - at least one publication. Every month should be publication schedule (news, virtual exhibitions, information on projects, events poster as well as a report / photo report on its conduct, interesting facts on the subject close).Break in two or three days could have lead to the loss of active users. Interest must be maintained always - a pledge of loyalty to the library and its services.If for some objective reason, regular maintenance of the page / group is delayed (for example, temporary disability librarian, due to weekends and holidays), it is recommended to use the program avtopostinga (https://feedman.ru/), which allows you to publish appointed time previously created content.

In addition to regular content updates no less important is the question of his detention. To maintain interest in mediastranichke / group, it should be interesting, and ideally - unique content. The main value is the text content, as it is indexed by search engines, and then provided to the search results.

The study showed that the majority of media platforms school libraries filled with information about library events, most of them reported on the results of the activities are optional library announcements, some sites also include information about anniversaries and advertising library services.Contests, surveys (discussions), review of the literature, announcements of events of the village is filled with a small amount of surveyed library pages / groups.

Unfortunately, much of the material is written with dry, expressionless, bureaucratic language, reminiscent of library records, while allowed a huge amount of grammar, spelling, punctuation, stylistic errors.

In this case, it is clear that the expressive text, a successful submission of the selected topic is in everyone's memory, who met with him, and thus encourages visitors to social networks feedback in the form of comments, suggestions or discussions.

Virtual exhibitions only available on few resources, the total number of surveyed sites, although in terms of the leading function of the library - reading promotion - they are a great tool for advertising library collections to a wider audience. Besides placing useful information in social networks are just some school libraries provide online services.

It is necessary to draw the attention of specialists, that the creation and maintenance groups / social pages it is important to choose an interesting, informative, readable content that can attract a large number of representatives of the target audience. Post content should be useful and what is not less important, in their bulk - unique.In addition, all hosted content must undergo mandatory editing specialists. Also, there is an incorrect registration and easily navigable.

It is necessary to ensure easy navigation of the page: Maintain the headings and order, competent and succinct description of the page, indicating contacts.

The study revealed another problem associated with the design of social platforms. The page title is often found confusing abbreviations target audience, and some of them include the name of the librarian. Through abbreviations, personal profile, and without specifying the location of the library is impossible to detect the profile of the library in the virtual space.

The page should be clear, user-friendly and attractive to the target audience. The page title should: exclude incomprehensible abbreviations target audience and eliminate too long, do not fit in the title bar; page name should also not contain the name of the librarian.

The profile information necessary to decrypt the full name of the group / page, specify the location (city, town, village), address, phone number, opening hours of the library, F. IO librarian (department, sector), as well as other important information relating to the activities of the school library.

It is obvious that a visit to the library site should not cause visitors feeling of stiffness because of its formality, the more we can not forget that the site is a library, not personal.

Profile (design) should be clear and easy for each participant. In social networks is common practice to use avatars and nicknames. Avatar - cover social pages / groups, which includes a small logo image or photo library, nickname - the library name (sector, department, club, etc...), It is best if it's the name of the city and the number of the school, where the library, and the name, if the library got it.

Along with their own information on social networks and third-party libraries are placed materials - census. After analyzing the monthly average of the total amount of information on the library mediaploschadku attracted from other sources, we note that all pages of school libraries are not actively used such borrowing.

If half the studied social platforms, the total number of library sotsstranits / groups put huskies or do repost the information provided, which is quite acceptable for mediaploschadki, the other half are abusing attraction information, thus clogging up their sotsstranitsu / group information, which is often perceived as spam. This in turn reduces the demand for the site of the visitors, and can call into question the credibility of any libraries.

Successful promotion of social networking groups is largely dependent on how quickly the user will receive a response to your comment. After receiving a question or comment to the placement of materials, the librarian should be as soon as the string to respond to any treatment of users. Waiting a few days can cause a loss of interest, provoke a "migration" of the audience to another account.

Social networks spread the practice of setting avatars (cover), which should include a small image library (logo), or display a picture of her and nicknames - the library name (sector, department, etc...). So at this point it is also important to develop an avatar and set a nickname, that will make the page more personal library.

The main stage - to join the network. Registration - Enter the login registration page, or e-mail address and password.

Start filling addressable main page posting the requisite information: Full name Librarian (department, sector), location (city, town, village), address, phone number, opening hours. Also filling the following contents: Key facts and events related to the library (library mission, historical landmarks, some statistics, etc...).Add status - a special text message, which is placed by each user on their own in a special box and allows you to inform all visitors and friends in the contact list of any important event. Complete sections and configure the application.

Invite the maximum number of friends, those whom it will be interesting to chat, add friends first. Status library representative in the network to raise the participation of known and reputable personalities to potential audiences.The friends may be invited by the local "elite":... Representatives of local authorities, heads of educational, cultural, health and other institutions, businessmen, writers, historians, active readers, etc. It should also start groups: belonging to any group interest will also add weight to the page and expand the circle of friends. The social network is equally important to expand professional communication, entering the library community.

The page should promptly and constantly supplemented with new material; photos of events should be spread on the day of the meeting. On the wall (in the film) social pages should be laid out on the recent bookstore or library event.

It is important to remember about the integration with the library website Resources need to combine mutual links, announcements of publications, which will attract new users to the official website and a page and open up new opportunities for content distribution.

About the library representation in social networks should always talk to library activities, in private conversations with real and potential readers; information must be posted at all the information stands on its own publishing products, on business cards of the library and its experts, and others.

Opening of representation in social media provides a number of benefits the library

- it is possible to declare a library is a huge audience;
- social networks break down boundaries
- this is their main advantage, the social network group
- direct communication with the readers;
- you can quickly learn the views of users about the activities of the library, its specific event, change operating mode, to ascertain their wishes and preferences, etc .;.
- representation provides an excellent opportunity to instantly inform a large audience of new publications, competitions or events, and disseminate this information on;
- the possibility of advertising the library and its services.

When choosing a social network is important to remember that the main thing do not be afraid to experiment and follow a simple algorithm: to study the characteristics of each of the networks and choose to be active are those that meet the library's development strategy, as well as to include in the list of those which are already present readers of the library and where they may appear. We keep in mind that enjoys the social network "VKontakte" for communicating with readers the most popular. The largest social network "Facebook" the world is focused on the target audience and serves to share with colleagues. It should know that the most effective work in a complex social media (blog, microblogging, video blogs, social networks, etc.).

Implementation of a comprehensive use of the library website, blog, social networks enable competently and effectively promote the library in the information space.

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理工科大学生的个人心理素质

INDIVIDUAL PSYCHOLOGICAL QUALITIES OF A TECHNICAL UNIVERSITY STUDENT

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抽象的。 本文研究了学生的个人心理素质，例如气质，性格，意志，情感和情感等概念。 确定学生的素质对其活动，团队效率和教育活动的影响。
关键词：字符； 气质；情绪 将要；情怀。
Abstract. *This article examines the individual psychological qualities of a student, such concepts as temperament, character, will, feelings and emotions. The influence of the student's qualities on his activity, efficiency in the team, and educational activity is determined.*
Keywords: *character; temperament; emotions; will; feelings.*

Introduction

With the development of society, the influence of individual psychological qualities of the student on his activities is increasingly forgotten, therefore, most of the actions are mistakenly associated exclusively with intellectual characteristics. However, it is necessary to mention the great influence of the intellectual characteristics of the student, and individual psychological qualities, for example, character and temperament, emotions and feelings, will.

Purpose of the study – to establish the actual problems that arise in the process of studying the question of understanding the influence of individual psychological qualities of the student on the activity and his relationships with other people. The study aims to identify the characteristics of the individual and determine the structure of interactions not only in the educational sphere, but also in everyday life. The study is based on the consideration of key concepts, focusing on their differences and similarities, their comparison with each other in different people.

Materials and methods

The methodological basis of this research is based on the general scientific dialectical method of cognition, as well as on the use of analysis, structural-functional, induction, system-structural, deduction, observation and other methods of scientific cognition.

Results and discussion

Individual psychological qualities of the student are reflected in the variety of manifestations of his character and temperament. Some have a positive effect on the process of communication and interaction, therefore other properties can have negative consequences. In special states, the student cannot give in to control and act in an undesirable way. Therefore, it is directly important to determine the qualities of the student, his influence on the group, to understand which of them have a positive impact on the formation of communication skills and skills, and which have a negative impact [1, p. 130].

The main features of the individual characteristics of the student's behavior are temperaments. Ivan Petrovich Pavlov distinguished four types: sanguine, melancholic, choleric and phlegmatic [3, p. 157].

A sanguine person is a person who easily finds a common language with people, can take on several things at the same time. He easily learns in different fields of activity and knows how to manage his emotions. Phlegmatic people, on the contrary, can not do everything quickly, it is more convenient for them to slowly complete one task after another. They are characterized by patience and insensibility, this is shown in their manner of communication. People with cholerics have a great capacity for work, and they are also characterized by high activity, so difficulties are not a problem for them. But after high activity, there comes a moment of depression and loss of strength. The mood of the choleric is not. Such people tend to be proud, straightforward, and short-tempered. Melancholics, therefore, usually have an increased sensitivity, they are emotional, responsive, but always frivolous. Such people are conservative, I think it is difficult for them to quickly get used to changes in life [3, p. 71]. In various extreme situations, you often have a panic state, you can come to despair and longing for a long time. A student with this temperament is often shy and overly timid, as he has developed the so-called "natural caution reflex".

Such a phenomenon as the" temperament barrier " can, for example, occur between people with different types of temperament. So I think a student with high reactivity, quick-tempered, for example, begins a dialogue with the teacher, suddenly begins to be rude and show indignation at some remark or remark. At the same time, the same remark may mean nothing to the other student. Thus, we can say that representatives of different temperaments perceive the same situation based on their measure of education. For example, the teacher's lack of understanding of the differences in the temperament of students can probably lead to tension in the relations of the group and develop into conflicts [5, p. 41].

Emotions are a mental process in the student's attitude to himself and the world around him. The student mostly reacts emotionally to everything. Psychologists have grouped all the senses into three groups: aesthetic, intellectual, and moral.

The moral recognition of actions is the basis of all the moral feelings of the student. Intellectual feelings arise in cognitive activity: feelings of surprise, joy, and curiosity. The aesthetic feelings of the student are reflected in the attitude to the beautiful and ugly. All feelings are closely interrelated, they help to eliminate the standardization of the individual's psyche, to prevent one-dimensional perception of reality [5, p. 43].

For example, in order to optimize and maximize the effectiveness of students ' physical activity, it is necessary to combine them into groups. Group exercises and activities should eliminate all tension, conflicts, and role uncertainty among students. Such exercises should stimulate positive emotions, arouse empathy in groups, open up the possibility of mutual help and support, the necessary interest and intensive communication between participants [4, p. 188]. However, directly in the educational activity, you can often find a barrier of bad mood. The teacher should understand that his negative emotions and bad mood can be easily transferred to the student. Therefore, directly conducting classes with a bad mood is doomed to poor performance, the student's performance decreases, he often breaks away from the class material.

From the Greek language, the word "character" means "imprint", from here you can make a definition. Character is an individual feature of each student, which is formed throughout life [2, p. 167].

In relation to public duties and duties, character traits are revealed: perseverance, passivity, wastefulness, diligence or conscientiousness, negligence or thrift. I believe the attitude towards people is reflected in sociability, politeness, benevolence, and the attitude towards oneself in the evaluation of one's own actions. The analysis of their behavior contributes to the improvement of the individual, thus helping to develop useful traits for society.

Conclusion

Summing up, we can conclude that the value of individual psychological qualities of the student is quite high. Personality traits such as character, temperament, will, feelings and emotions have an impact on the student's relationship with the environment, with society. If you take into account the individual psychological characteristics of people when working in a group and correctly compare them, then the result will be more effective, and the group itself will become an example of cohesion and efficiency.

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俄羅斯教育發展的創新載體
INNOVATIVE VECTORS OF DEVELOPMENT OF RUSSIAN EDUCATION

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本文專門介紹了現代教育系統在不穩定情況下抵抗挑戰的能力。 本文分析了教育系統可能面臨的問題情況，考慮了創業教育的特點，並從尋找專家在勞動力市場中相對穩定的角度評估了創業教育的可能性。

關鍵詞：能力，資格，創業教育，不穩定。

Annotation. *The article is devoted to the capabilities of the modern education system to resist challenges in a situation of instability. The article analyzes the problematic situations that the education system may face, considers the specifics of entrepreneurial education and assesses its possibility from the point of view of finding a specialist's relative stability in the labor market.*

Keywords: *competence, qualifications, entrepreneurial education, instability.*

The relevance of research

The year 2020 has become a kind of challenge to the established and habitual forms of life: for the first time in the last hundred years, humanity is faced with a pandemic. The education system today is going through a period unique in its complexity and ambiguity (VUCA): a period of changing educational eras. This is a logical consequence of the development and implementation of digital technologies in all spheres of human life, which could not affect “our universities”. K. Robinson wrote that the old paradigm of education is living out its last days, that some completely different future awaits us, but no one knows which one [16]. Too obvious categoricality is inherent in this position, which may well cause not only indifference, but also rejection of ideas and concepts “lowered from above”. In this regard, the education system should not lose what is considered to be the classics of education. None of the most progressive technologies can replace “live” communication between a teacher and a student, general erudition cannot and should not be lost against the background of “progressive” competencies.

Analytical controversy

A modern university as an institution of society has every opportunity not only to look into the future, but also to design it. At the same time, it still largely continues to use ideas and concepts that were relevant in the past. We are waiting for new fashionable ideas - in clothes, new technological possibilities - for cars, better food composition - for products, forgetting that no breakthrough can occur without changing the existing one and creating a new reality, a reality in which specialists will begin to enter the labor market. , owning relevant and demanded competencies.

In the study “Russia 2025: From Personnel to Talents” [15], carried out by the Boston Consulting Group with the support of Sberbank, WorldSkills Russia and Global Education Futures, the figure of 10 million people looks remarkable and even somewhat shocking. It is precisely such a shortage of new specialists in the "knowledge economy" - capable of working with creative tasks, with the challenges of the future - that Russia will see on the labor market in the next 5 years.

The shortage of personnel and qualifications gives rise to another problem of modern education - the inconsistency of competencies in the "employer-employee" link. According to the Hays Global Labor Market Index [18], the increasing mismatch between workers 'competencies and employers' requirements remains one of the key labor market problems for all major economies in the world. The question becomes urgent: how and what to teach a modern student? In search of an answer to it, it is important not to forget and always prioritize the prestige of the teaching profession, its value for society. The academic community should not allow the transformation of the education sector into the service sector, when the “paying” for the service dictates and decides how and what to study, with the help of what pedagogical technologies he will receive knowledge, promoting the concept of “the client is always right”. No matter how “modern” and adapted the sphere of education becomes, the teacher and the student should always be on “opposite sides of the barricades”. Only in this case we will receive an education based on respect and experience, when the word “teacher” is equal to “mentor”, without ironic meanings and shades.

It is possible to become a truly effective teacher if there is a developed scientific infrastructure, appropriate motivation, a decent level of material incentives and, no matter how banal, free time. Time free from classroom work, the time that can actually be spent on research, quality testing and implementation of the results. The “effective contract” actively implemented in many Russian universities is most often only a quantitative assessment of the results of a teacher's labor activity, but is practically deprived of the opportunity to conduct a qualitative analysis of professional achievements. After all, formally an associate professor with five "VAK" publications is better than another associate professor with four, or one associate professor with a patented new technology, because there is only one. To assess the quality of published materials, their "breakthrough" nature or lack thereof, resource intensity and relevance of the research, take into account the level and status of the journal in which the article is published, its rating, as a rule, there is no one. The attestation commission looks formally at the positions of candidates, expressed in absolute values.

A modern teacher now plays various roles: a lecturer, a tutor, a digital curator, a mentor, an analyst, a content manager, a student who himself is constantly learning new things, and so on, which predetermines the expansion of boundaries and the search for new opportunities for "broadcasting" competencies and "learning ".

Without open science, it is impossible to solve the problem of entering the top ten countries with high-quality education by 2024 - it was set by President V. Putin back in 2018 - it is impossible. Meanwhile, the previous ambitious project in this area - the 5-100 project, which assumed the entry of five Russian universities into the top hundred of the world's universities by 2020 - did not achieve its goal. You can follow the path of shifting responsibility and looking for blame for the fact that Russia is still not the leader of the educational market. And you can ask the question, what is competence? The answer to this question is very clearly given by B.D. Elkonin: “Competence is when I can turn some knowledge into a means of constructing a new action”. This means in the modern world is entrepreneurial education.

Possible solutions to the problem

In search of relative stability, consumers are showing increased interest in this area of training. The state, in turn, should be interested in the accessibility of entrepreneurial education, as it helps to reveal the entrepreneurial potential of young people [1, 2], stimulates entrepreneurial activity, which helps to reduce unemployment and increase the welfare of the population [6].

One of the characteristics of modern education is the transformation of universities from traditional research to entrepreneurial universities [13], which actualizes the need for the development of entrepreneurial educational programs.

The process of learning entrepreneurship involves mastering entrepreneurial competencies [13]. A number of researchers [1, 4] focus on the importance of consolidating entrepreneurial competencies in practice, since it is the absence or insufficiency of practical orientation that makes education too theoretical, not adapted to modern market needs.

At the same time, the concept of entrepreneurial education is constantly being improved through the development and implementation of new technologies for teaching entrepreneurship. An innovative approach to actualizing the professional competencies of students is to involve them in the creation of start-ups on the basis of universities - dynamically developing companies focused on making a profit from the introduction of modernized or new commercial products to the market

[14].

Startups can be used as a tool for the formation and development of professional competencies of students, but this requires compliance with a number of conditions. The university should take the initiative to create a regional startup ecosystem, form a university entrepreneurial network that includes students and alumni, open its own crowdfunding platform, and launch a startup factory.

An urgent issue is the creation of a university crowdfunding platform that allows attracting investment resources for the implementation of the selection stages of start-up projects, as well as the search for additional sources of funding for scientific research at the university, the development of new entrepreneurial educational programs.

In order for universities to be able to effectively use such a tool for consolidating and updating students' professional competencies as startups, a number of conditions must be met.

First, the university should take the initiative to create and become an integrator of a regional startup ecosystem, which will become a link between startups, business incubators, accelerators, technology parks, technology transfer centers, legal and accounting outsourcing companies, business angels, crowdfunding platforms, venture capital funds. , mentors, businessmen and other subjects of the entrepreneurial environment [7, 9, 14].

Second, a university entrepreneurial network should be created. Business networks are digital platforms for building business relationships, identifying, developing or exploiting economic opportunities, exchanging information and finding potential business partners [8]. These are business social networks that help entrepreneurs expand their business interests by forming mutually beneficial business relationships [12]. Entrepreneurial networks are a valuable strategic intangible resource for the implementation of startups [5].

Third, it is necessary to organize a startup factory. Developments obtained as a result of university research can be used as ideas for the implementation of startups. It is rational to use the concept of "lean startup" [10], developed [11]. This concept assumes a detailed preliminary modeling of all stages of a startup project in order to weed out projects in advance that, with a high degree of probability, will not be able to be completed due to their economic inefficiency. This approach will ensure the rational use of financial resources attracted by the university to create startups. Considering that the startup factory simultaneously implements several start-up projects, and the business environment for the implementation of start-up projects is dynamic and complex, it becomes necessary to apply new approaches to modeling the stages of implementation of start-up projects [3].

Prospects for development and study

It is promising to study the possibilities of differentiating the stages of the implementation of start-up projects and the conditions for the transition from one stage of the project to another depending on the type of startup (for example, for high-tech startups, social startups, Internet startups, and others).

The question still remains debatable: is entrepreneurship a set of specific personality traits or is it a set of skills that can be learned? In our opinion, entrepreneurial skills can be mastered by getting an entrepreneurial education [13]. It should be noted that the list of professional competencies of an entrepreneur does not remain unchanged, it is constantly supplemented by more and more new competencies, which is associated with the continuous technological progress of social production. The importance of maintaining the level of professional training determines the need to continue training a person throughout his life.

The profile of professional competencies and skills will change as the emergence of the digital economy will lead to the formation of a new type of entrepreneurship - digital entrepreneurship. In this regard, today it is necessary to shift the focus and make the mastering of competencies in the field of e-commerce a higher priority, which should be reflected in the programs of entrepreneurial education.

Main conclusions

At all times, education has been an integral part of human life: part of work, creativity, family, play, love and any other human affairs. In the VUCA-world, one cannot shift responsibility for one's own life and one's development solely to external forces (to the school, teachers, parents) [17]. As long as schools and institutions perform mainly supervisory and punitive functions, we will not be able to come to an understanding of the value of self-development. Striving to minimize responsibility for the quality of our career path makes us passive consumers of knowledge, and not actively seeking users.

The modern generation (millennials and generation Z) is most adapted to the need to constantly “keep abreast”, it is easier to master new information technologies, these people were born in the era of digitalization: a one-year-old child holds a pacifier in one hand, a smartphone in the other (and this is no longer is an exaggeration), while the existing workforce is increasingly in need of retraining and retraining.

The Atlas of New Professions [17] is ruthless: 57 professions, according to its creators - the Agency for Strategic Initiatives and Skolkovo - are doomed to disappear and fall into a career dead end. Managers, administrators, lawyers, drivers, dispatchers, operators, economists, accounting and procurement specialists, cashiers and others - until 2030 will begin to lose their jobs at different rates if they do not undergo additional training. What should a new specialist have? Bob Johansen, in his book Leaders Create the Future: Ten New Qualities for an Uncertain World, noted that VUCA situations and situations can coexist organically using the VUCA approach:

Vision (vision) - is provided through constant communication with other people, team activities. One in the field is not a warrior today.

Understanding - it is not enough to see the situation and discuss it, you need to understand it, and this requires an open and pure mind.

Clarity - for the mind to be clean, everything must be clear and understandable, simplified to the limit, sorted out, systematized.

Agility (agility) - in the VUCA-world you need to think quickly, make decisions quickly and act quickly.

World-class education researchers (for example, Michael Barber, an English educational expert) note that soon humanity will face a new peak in educational activity due to an increase in life expectancy: after reaching retirement age, many will need retraining to stay active and form new relevant competencies. To implement the model of education of the future, a developed high-tech infrastructure will be required, one of the elements of which will be quickly updated databases based on BigData technologies. Michael Barber notes that an individual approach will be placed at the center of the educational process - curricula will be formed by the students themselves.

It is people with developed thinking and high-quality skills that will become the highest value of the new knowledge economy for us. Whether this will become our main limitation or our new opportunity depends entirely on how competently and logically the new education system will be built, which will become not only a beautiful idea, or exclusively fragmentary experience and practice (like, for example, a simulator of the Skolkovo educational ecosystem), but it will also be embodied in real life, without becoming a "simulator" of education.

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中俄中等职业教育系统融合进程发展特征
FEATURES FOR THE DEVELOPMENT OF INTEGRATION PROCESSES IN THE SECONDARY VOCATIONAL EDUCATION SYSTEM OF RUSSIA AND CHINA

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这篇文章概述了俄中教育领域合作的主要阶段，着眼于中等职业教育在其先决条件下的融合过程水平较低；　指出了文化和教育互动的实际形式；　提出了关于国际流动性的中等职业教育师生调查的结果，预测了结果并概述了中等职业教育融合过程的主要困难。

关键词：中等职业教育体系职业教育融合国际人道主义合作俄中合作

Annotation. *The article outlines the main stages of the formation of Russian-Chinese cooperation in the field of education, focuses on the low level of integration processes in secondary vocational education (hereinafter - SVE) in the presence of their prerequisites; the actual forms of cultural and educational interaction are indicated; presents the results of a survey of students and teachers of secondary vocational education on the subject of international mobility, predicted the results and outlined the main difficulties of integration processes for secondary vocational education.*

Keywords**:** *system of secondary vocational education, vocational education, integration, international humanitarian cooperation, Russian-Chinese cooperation.*

Russian-Chinese cooperation is a comprehensive strategic partnership. One of the most important components of this partnership is cooperation in the humanitarian sphere and, in particular, in the field of education, which is taking the form of integration processes.

The development of cooperation in the field of education is proceeding in stages:

- 12/18/1992 - an agreement between the governments of the Russian Federation and the PRC on cultural cooperation, including in the field of education;
- June 26, 1995 - an agreement between the Government of the Russian

Federation and the Government of the People's Republic of China on the mutual recognition of educational documents and academic degrees;

- July 16, 2001 - "Treaty on good-neighborliness, friendship and cooperation between the Russian Federation and the PRC", in which it was established (Article 16) that states in every possible way contribute to the development of exchanges and cooperation, including in the field of culture and education;

- 09.11.2006 - an agreement between the Ministry of Education and Science of Russia and the Ministry of Education of China on cooperation in the field of education, in accordance with which the main directions of cooperation were determined by academic mobility, deepening cooperation in organizing and studying the Russian and Chinese languages in both states;

- 18.12.2020 - an agreement on cooperation and joint activities in the development of the vocational education system, which implies cooperation in joint research, exchange of experience, best practices in the development of the vocational education system in the Russian Federation and the People's Republic of China. It was this document that became an indicator of the interest of the two countries in cooperation in the system of secondary vocational education [8].

Thus, for almost 30 years, humanitarian ties, lost at a certain stage of Soviet-Chinese relations, both in general and in the field of education, were restored. At the same time, the integration processes, first of all, went at the level of higher education.

Thematic cooperation in the form of Russian-Chinese cross-years is of great importance for the development of humanitarian ties [10].

The role of international cultural and creative events should be noted, in particular the China Today 2018 festival (Krasnodar, Moscow, 2018), organized by the All-China Association of Literary and Artists (CFLAC), the Beijing Rakurs Film Company and the Krasnodar State Institute of Culture.

Active integration processes are taking place in the field of higher education, where the main channels of communication are academic exchanges of students at the levels of bachelor's, master's, and postgraduate studies; semester exchange programs and internships in areas; creation of joint educational programs at various levels; creation of scientific, technical and research projects and laboratories; joint seminars, olympiads, symposia and scientific conferences for young scientists from the two countries; international summer and winter schools, joint scientific work [1].

Such a rich integration interaction confirms that international cooperation in the field of higher education is a priority [7].

Against the background of such active interaction at the level of higher education, the integration processes in secondary vocational education are extremely slow. At the same time, it is possible to indicate such prerequisites for integration as the presence of something common in the education systems of

Russia and China [2], the historical experience of integration processes in the form of borrowing; integration processes in the higher education system, the presence in a number of universities that actively interact with universities in the PRC, SVE branches, which, being structural divisions of universities, are involved in integration processes; strengthening of cooperation between states in various fields and others.

Moreover, the draft Russian SVE Development Strategy until 2030, presented by the Ministry of Education of the Russian Federation in October 2020, provides for the constant updating of the content of vocational education and training in accordance with current and future requirements for the qualifications of workers and the development of technologies, the need to organize an international comparative study is noted. national SVE systems, promoting the export of technological sovereignty, providing for the creation of branches of Russian technical schools and colleges abroad, attracting students from abroad, improving the quality of education through the development of a culture of professional competition (WorldSkills International) [4].

Today, the main forms of Russian-Chinese interaction in the field of secondary vocational education are training and participation of students in blue-collar championships held by various international organizations, for example, within the BRICS. However, there are no international competitions for SVE students in creative specialties yet, with the exception of competitions in the skills of jewelry craftsmanship, graphic and landscape design, within the framework of WorldSkills [11].

Undoubtedly, the systems of secondary vocational education in Russia and China have the potential for deeper integration, and, in particular, for organizing the mobility of students and teachers of SVE institutions. The main types of this mobility can be short-term internships and summer schools, which require, first of all, a certain level of language training of the participants.

Conclusions on the presence of demand for participation in international student mobility programs were obtained in the course of a study conducted on the basis of the Krasnodar State Institute of Culture in March 2020. The survey was conducted among first-year college students of the Krasnodar State Institute of Culture. The aim of the study was to obtain objective information about professional choice and career development, about the attitude towards international student mobility. The study involved 73 students of such programs of secondary vocational education as: "Documentation support of management and archival science"; "Musical and instrumental art" ("Piano, Orchestral string instruments, Orchestral wind and percussion instruments, Folk orchestra instruments"); "Solo folk singing"; "Design in Culture and Art", "Choreographic Creativity". The research was voluntary and anonymous.

As a result of the study, the following data were obtained. Only 34 out of 73 students speak a foreign language (English), which is 46.5%, while 7 people can confirm their proficiency in a foreign language at any level (out of 34 - 20.6%, out of 73 - 9.6%). The specification of the question of the confirmed level of language proficiency was introduced into the questionnaire in order to obtain more objective information.

To the question related to the desire to undergo a short-term internship abroad, more than 76% of the respondents gave a positive answer. Of 56 people who expressed a desire to participate in the international mobility program, 19 people (33.9%) indicated a preference for an internship in Europe and 37 people (66%) indicated a desire to do an internship in Asian countries.

More than 67% of the respondents expressed a desire, if possible, to continue their studies at a foreign university on undergraduate programs after successfully completing their studies on secondary vocational education programs at a college at FSBEI HE "KGIK".

The results of a questionnaire survey of students of the SVE department of creative directions of training showed that most of the students understand the importance of international student mobility and stay in a different socio-cultural environment for professional and personal development.

A survey conducted among the teachers (15 people) of special creative disciplines of the college at the Krasnodar State Institute of Culture showed that it would be interesting for them to get acquainted with the training system in the specialty in the PRC (100%), the absolute majority (86%) are ready to give master classes for their foreign colleagues and foreign students; more than half of the teachers (60%) said that they would be interested in an internship in China. The teachers especially pointed out the desire to get acquainted with the methods of teaching choreographic art, calligraphy and traditional painting, traditional solo vocal performance. Teachers of general education and special disciplines who work with students from the PRC (preparatory department, bachelor's degree, master's degree) note their organization, perseverance and ability to work, a positive attitude towards Russia, and a respectful attitude towards teachers.

As shown by the survey, the most important factor that can inhibit international student and teaching mobility in SVE is the weak knowledge of foreign languages.

Analyzing the results of interaction between the Krasnodar Institute of Culture and institutions of higher professional education of the PRC, projecting these results as potentially possible on the SVE department at the university, it can be assumed that the development of integration processes for the SVE system of a creative orientation will give the following results:

- students will gain experience of interacting with teachers from the PRC, get acquainted with a new method of teaching creative disciplines; studying abroad will provide an opportunity to get acquainted with the culture of another country, develop communicative and professional competencies, which will subsequently give tangible advantages in the labor market;

- for the teaching staff, working with foreign students and colleagues, conducting master classes and internships can stimulate the teacher's professional growth, striving for development;
- for an educational institution, the presence of outgoing mobility becomes a tool for attracting foreign students, and the export of educational services for SVE institutions is one of the criteria for the effectiveness of an educational organization [9]; interaction with educational organizations of the PRC in similar areas of training can become an important resource for the personnel policy of an educational institution; in addition, interaction at the SVE level acquires special meaning from the point of view of career guidance (students are interested in educational institutions that exist in the system of international educational and cultural relations), making it attractive not only to obtain secondary vocational education, but also to ensure admission to higher professional education programs [3] ;
- for the system of secondary vocational education: international cooperation will increase the social prestige and educational efficiency of creative SVE institutions;
- for the state and society as a whole, cooperation will give not only results for the education systems of the two countries, but will also give a new powerful impetus to international humanitarian cooperation.

Despite the potentially attractive results of Russian-Chinese interaction in the field of SVE, it is necessary to take into account the difficulties (insufficient regulatory regulation, a high level of administrative regulation, the peculiarity of the student population, staff shortages) that secondary vocational education institutions face in the process of implementing the strategy of internationalization of an educational institution. To minimize organizational risks, it is necessary to study and critically comprehend the experience of interaction at the higher education level from the point of view of its applicability in SVE, to objectively assess the resources of educational institutions and potential partners, while it is necessary to take into account the availability of personnel with the competencies to establish and maintain communication processes in a foreign language, with experience of interaction with the citizens of the PRC, knowledge of the culture and certain values of society and the partner state, as well as material and technical security.

Issues and difficulties related to the level of foreign language proficiency among students can be resolved using the resources obtained as a result of cooperation in the field of higher education. There is no doubt that English remains the international language of business communication. At the same time, recently there has been an increase in demand for learning the Chinese language. So, for example, in Russia there are 21 representative offices of Hanban - Confucius Institutes and Schools, where students and employees can study Chinese (while 102 Russian Language Centers have been opened in China, the specialty "Russian language" has been opened in 153 universities) [6].

The training of personnel for the SVE institution who speaks Chinese can be organized through the cooperation of the higher education institution, the Confucius Institute and the SVE institution, where the institute can provide both language training and internship.

Analysis of integration processes in the higher education system, the presence of prerequisites for similar processes for the system of secondary vocational education, practical experience, taking into account potential difficulties, allow us to conclude that it is possible and necessary to develop integration processes in the SVE systems of Russia and China.

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在校外艺术教育中心培养中国学生的学术歌唱技巧

FORMATION OF ACADEMIC SINGING SKILLS FOR CHINESE STUDENTS IN OUT-OF-SCHOOL ARTS EDUCATION CENTERS

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抽象的。 随着经济的发展和物质生活的改善，中国人民开始重视精神文化的发展和完善。 中国的教育旨在个人的全面发展。 人的道德素质的培养，智力，身体和美学的发展是教育观念的基础。 结合选定的地区，面向中国中小学生的声乐技术教学方法也在不断发展。 本文介绍了校外艺术教育中心小学生唱歌技巧的形成方法。
关键字：校外艺术教育中心，儿童声乐教育，声乐技能
Abstract. *With the development of the economy and the improvement of material life, the Chinese people began to attach importance to the development and improvement of spiritual culture. Education in China is aimed at the all-round development of the individual. The cultivation of people's moral quality, the development of intelligence, body and aesthetics are the foundation of educational concepts. Combined with selected regions, the teaching methods of vocal music technology for Chinese primary and middle school students are also constantly evolving. The article introduces the formation method of the singing skills of elementary-age children in the off-campus art education center.*
Keywords: *Centers for out-of-school art education, vocal education of children, vocal skills*

The existing education system in China's arts education and off-campus learning centers is an important means of aesthetic education for students. The main focus of these centers is to popularize art among young people, educate music lovers, create conditions for the creative development of the younger generation. The level of vocational training in out-of-school education centers is not inferior, and often even surpasses the level of art education in schools.

Within the framework of this article, we will consider the features of teaching children of primary school age to academic vocal in the centers of out-of-school art education. Training in the basics of vocals is implemented on the basis of health-saving technologies, taking into account the physiological, psychological and intellectual capabilities of children of primary school age.

Leading Chinese vocal teachers Zhou Xiaoyang, Guo Shuzhen, Yu Yixuan have made outstanding contributions to the development of Chinese vocal music.

Guo Shuzhen attached great importance to the application of breathing techniques in her teaching. She has developed a perfect breathing training method based on the correct singing position. Yu Yixuan also paid great attention to the development of respiration. According to this author, the first priority in breathing is a high-quality inhalation: “do not open your mouth, do not inhale strongly” [5, p. 72]. Yu Yixuan specifies that for the formation of a vocal position, it is important to inhale through the space between the nostrils, lips and teeth at the same time. Yu Yixuan also makes a number of requirements for breathing: inhalation should be quick, deep, natural and silent; when exhaling, maintain the inspiratory position; control breathing with the help of the diaphragm and muscles of the anterior abdominal wall; slow down the exhalation process, make sure that it is as stable and even as possible; keep the elasticity of the respiratory muscles [5, p.72].

For the development of singing breathing in children, it is important to actualize associations with life phenomena: smell the smell of flowers, take a deep breath, restrain it for a while, and then slowly exhale, as if blowing into a candle, while not trying to extinguish the flame. An appeal to life situations, close and understandable to children, makes the process of forming singing breathing as accessible as possible for comprehension.

In her work on breathing and stage beauty, Zhou Xiaoyan pays attention to correct singing posture. She believes that the correct vocal position lies in the active tone of the body without tension. When working with children, the author focuses on gaming technology. Zhou Xiaoyan invites the child to imagine himself as a ballerina: rise and turn to the environment, as when a ballerina is dancing, so that your ribcage can move in any direction [3].

The author of the method "separation of true and false voices" Shen Xiang believes that good sound production is provided by a combination of the work of true and false ligaments [2]. The source of sound production is the vocal cords. Shen Xiang draws attention to the weakness and underdevelopment of the vocal cords of children and believes that the basis of vocalization lies in training the vocal cords. The author notes that the singing repertoire should be selected with exceptional attention to the individual capabilities of the singing voice of each child.

When choosing a repertoire, special attention is paid to the ratio of Chinese and Western music. To create a situation of success, the singing repertoire must correspond to the vocal characteristics of the child, in order to show the uniqueness of his voice through the performance. Expressive singing is facilitated by the children's awareness of the content of the song being performed, therefore it is important to reveal to the child the history of the song's creation, its emotional-figurative content.

A distinctive feature of education in out-of-school art education centers is the individualization of education, the realization of the possibility of purposeful development of musical abilities and, above all, musical ear. It is important to remember that the development of ear for music should outpace the formation of vocal skills, which will make the process of learning vocal more productive. Demonstration of learning outcomes at off-campus arts education centers occurs through organized performances and tests. But since the system of additional education has a less stringent reporting framework, therefore, the timing and frequency of their implementation are determined by the center independently.

Children's performances within the framework of concert activities organized by the centers allow the child to gain experience of stage culture, develop such qualities as artistry, confidence, and purposefulness. The results of the performances clearly demonstrate to the students the level of their mastery of vocal skills, the presence of problems and motivate them to further improve them. Based on the results of the concert performances, a plan is drawn up for the next period of vocal training. It is important that parents can also learn about their children's progress through educator reports and presentations.

In addition to individual programs for the formation of academic vocal skills, the centers implement programs for collective choral singing: a choir of teachers and a choir of students. In the process of choral performance, children master singing in unison, develop a single manner of sound formation, coordinated vocal sound. Studying at art centers for extracurricular education includes performing in vocal competitions in China and abroad. The Ministry of Education of the PRC has established a vocal exam, which children take at the end of the period of study in art centers, which can last from the moment they enter school until they reach the age of majority.

In conclusion, it is important to note that the formation of academic vocal skills, as the art of developing the human voice, is one of the most democratic and universal ways of the all-round development of children, introducing them to the art of music. Off-campus children's vocal arts education centers are a good base for developing children's vocal skills. A decent professional level also allows us to consider these centers as a cradle for the development of professional vocal talents.

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蒙古语族裔的民族运动学问题

ETHNOMATHEMATICAL PROBLEMS OF MONGOLIAN-SPEAKING PEOPLES IN EDUCATION

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抽象的。本文比较了俄罗斯的蒙古人，布里亚特人和卡尔梅克人之间的民族运动学问题，并与其他民族的问题进行了比较，并提出了解决方案。从国家任务的内容可以清楚地看出，它们是由游牧民族的生活及其生活方式提出的实用性质。通过解决方法的任务可以分为寻找整体的部分，分为比例部分，百分比，数字的奇偶性质，算术和几何级数，一阶和二阶方程，不定方程，混合问题等。在学校教育中使用民族运动学问题可以使学生熟悉数学科学的历史。对他们的内容的分析表明，它们与不同民族的任务具有相似性，证实了讲蒙古民族的民族数学-祖尔凯族与中国，印度，伊斯兰教，古希腊等国家的数学思想之间的相似性。

关键词：民族数学；蒙古语民族的民族数学-zurkhai;蒙古民族的民族运动学问题，解决这些问题的方法以及将其与其他民族的问题进行比较的方法。

Abstract. *The article examines the ethnomathematical problems known among the Mongols, Buryats and Kalmyks of Russia, in comparison and comparison with the problems of other peoples and ways of solving them. From the content of the national tasks it becomes clear that they are of a practical nature, put forward by the very life of the nomads, their way of life. Tasks by methods of solution can be divided into finding parts of a whole, dividing into proportional parts, percentages, parity properties of numbers, arithmetic and geometric progressions, equations of the first and second degree, indefinite equations, problems with mixtures, etc. The use of ethnomathematical problems in school education allows students to become familiar with the history of mathematical science. An analysis of their content shows the similarity with the tasks of different peoples, confirms the similarity of the ethnomathematics of the Mongol-speaking peoples - the Zurkhai with the mathematics of China, India, the countries of Islam, Ancient Greece.*

Keywords: *ethnomathematics; ethnomathematics of Mongolian-speaking peoples - zurkhai; ethnomathematical problems of the Mongol-speaking peoples, methods of solving them and comparing them with the problems of other peoples.*

Modern mathematical education is based on the principles of ethnocultural identification and integration of the individual into the world community. In the works of Russian scientists N.I. Merlinoy N.I., A.I. Petrova, V.M. Berkutova, M.D. Dyachkovskaya et al. Finds a place for the study of the mathematical heritage of the peoples of Russia, emphasizes the need to develop content and use it in education [3, 6]. The issues of the emergence, preservation and application of the initial mathematical concepts of different peoples in teaching are considered in the works of Ubiratan d'Ambrosio, A. Bishop, K. Zaslavsky, M. Alberti, B.L. Yashin and others, who laid the foundation for a new scientific direction - ethnomathematics [1, 7].

However, the content of the ethnomathematics of the Mongol-speaking peoples, called *zurkhai*, has not been sufficiently studied, the accumulation and systematization of the accumulated information continues. In this paper, we will consider some folklore forms that are modeled into mathematical problems using the concepts of numbers, figures, units of measurement, relations, equations, inequalities, progressions, percentages. We call such folklore forms ethnomathematical folklore [4, 5]. The main work revealing the history of the development of ethnomathematics of the Mongol-speaking peoples of the *zurkhai* is the work of B. Batzhargal "Ertniy Mongolian mathematician" ("Early mathematics of the Mongols"). It reflects the results of the analysis of many Tibetan, Sanskrit, Chinese, Mongolian manuscripts, woodcuts and Mongolian folklore texts collected by him [2].

From the ethnomathematical folklore of the Mongol-speaking peoples, we will try to single out folk solutions, correlating them with the solutions known among other peoples.

1. Method of adding missing

Problem 1 (Mongolian). One old man had three sons. Once he wrote a will: "After my death, let the eldest son get half of my herd of camels, the middle one - one third of them, and the youngest one - ninth." After the father left for another world, the sons could not divide the 17 camels into either 2, 3 or 9. Then they asked the wise old man for help, who divided the camels according to the stipulated condition. How many camels did each son get?

We note that the camel is one of the five sacred animals of the Mongol-speaking peoples, on which from ancient times they transported goods along the Great Silk and Tea Routes. Similar tasks are encountered in different nations of the world. In the solution known among the Central Asian peoples, the sage adds an donkey or mule to the herd, and in the Mongolian folk problem, the sage adds his camel when dividing, and then takes it back.

Solution The number of camels must be divisible by 2, 3, and 9, LCM (2, 3, 9) = 18. However, the sum of the shares

$$\frac{1}{2}+\frac{1}{3}+\frac{1}{9}=\frac{17}{18}$$

differs from one. If we add $\frac{1}{18}$ that is, add one camel, then the herd is easy to divide according to the father's will. One son will receive 9 camels, the second 6, the third 2. Answer: 9, 6 and 2 camels.

From a methodological point of view, this task leads students to understand the concept of the least common multiple, the concept of the whole. It also deals with fractions (unit fractions). Parts and shares have been recognized by people since time immemorial. In Mongolian languages, they are called *khuv* (among the Mongols), *khubi* (among the Buryats). The way of reading fractions is different from the modern one, in ethnomathematics *zurkhai* is first called the denominator and then the numerator. So, the fraction $\frac{12}{18}$ is read as *eighteenths of twelve*.

2. A way to solve a problem from the end

Problem 2 (Buryat). The father and mother divided the flock of sheep among all the sons according to folk tradition. The youngest son was given half of the 256 heads of the flock, since he was supposed to provide his parents with a decent old age, and each of the remaining brothers got half as much as the previous one. As a result, the eldest son received 2 sheep. How many sons were there in this family?

Solution.

2 + 4 + 8 + 16 + 32 + 64 + 128 = 254. At the same time, two sheep remain with their parents according to folk tradition. Answer: 7 sons.

This problem is similar to the Indian problem from the Bakhshali manuscript (III century): "*B* gives twice as much as A; C - three times more than B; D - four times more than C. All together give 132. How much did A give?" The manuscript gives the following solution: "Let the unknown be equal to 1, then A = 1, B = 2, C = 6, D = 24, the sum is 33. Now let's divide 132 by 33. This will be the desired value." The Hindus acted in the reverse order and called this method of decision "the rule of circulation." The Buryat problem of a flock of sheep was also solved from the end by the inversion method, that is, the Mongolian peoples used a method similar to the Indian "rule of circulation".

3. Enumeration method

Problem 3 (Buryat). A flock of birds flew up to the trees. If each of them sits on one tree, then one bird will be superfluous. If the birds sit on trees in two, then one tree will be superfluous. How many birds were there and how many trees?

Here are similar problems encountered by other peoples.

Bulgarian folk problem. Donkeys grazed in the clearing. Several guys approached them. "Get on the donkey, one at a time!" - commanded the eldest of the guys. One boy was left without a donkey. “Get off! Get 2 on the donkey, ”the elder commanded again. One donkey was left without a boy. How many donkeys and how many children were there in the clearing?

Problem from the collection of fairy tales "1001 nights" (night 458). A flock of pigeons flew up to a tall tree. Some of the pigeons sat on the branches, and the other settled under the tree. The pigeons sitting on the branches say to those located below: "If one of you flew towards us, then you would become three times less than us together, and if one of us flew to you, then you and I would become equal." How many pigeons were sitting on the branches and how many under the tree?

Euclid's problem (III century BC). A mule and a donkey walked along the road with sacks under the pack. The donkey groaned pitifully, crushed by an overwhelming burden. This mule, who noticed, turned to his companion with a speech: "Well, old man, are you whining and crying like a girl? I would bear twice as much as you, if you gave me one measure. If you only took one from me, then we would be equal." How much each of them carried, oh, geometer, tell us this.

As you can see, in these tasks the plot is similar, known to many peoples. We believe that the problem was solved by the brute force method, since brute force is one of the most ancient methods found among all peoples at the early stages of mathematics development.

Solution.

Method 1.Choosing the first condition of the problem: there are 1 more birds than trees, consider pairs of numbers expressing the number of both: 2 and 1, 3 and 2, 4 and 3. Assuming that there are 4 birds, we are convinced that the second condition of the problem performed. This means that there are four birds and three trees. In the other two cases, the second condition is not met.

Method 2. Let's try to find the required numbers, given that they must be integers. Let's say there were two birds. According to the first condition, we plant the birds one by one on the trees. Since in this case one bird will remain superfluous, the tree will be one. But then the second condition is not met: if two birds sit down one tree at a time, there will be no extra trees. This means that there are not two birds. Similarly, consider the case when there are three birds; it also does not satisfy the condition of the problem. Assuming that there are four birds, we make sure that both conditions of the problem are met. Answer: 4 birds, 3 trees.

Solution does not require special mathematical knowledge, you can perform a full possible enumeration of options. However, the task has great didactic value: by looking over possible solutions, students develop intuition, skills of oral counting, experiment, observe, and draw general conclusions based on particular results.

Folklore tasks of Mongolian-speaking peoples are used in the classroom to create motivation to study a new topic, stages of consolidation and generalization of what has been learned. They can be categorized according to some topics of the school curriculum. Here are some examples.

Topic "Actions with natural numbers"

Problem 4 (Buryat). The man became a father at the age of 17, 19 and 21. If the youngest of the sons is now 3 years old, how old are the eldest sons? Answer: 5 years and 7 years.

The next problem is interesting because the answer is a multi-digit number. This suggests that the Mongols, Buryats, Kalmyks operated with large numbers and gave them names.

Problem 5 (Mongolian). Old man Erentai had 99 children, each of them had 9 children. Each of the 9 children had 7 children, each of the 7 children had 3 children. How many were there in total?

Solution.

$1 + 99 + 99 \times 9 + 99 \times 9 \times 7 + 99 \times 9 \times 7 \times 3 = 1 + 99 + 891 + 6237 + 18\,711 = 25\,939$. Answer. 25 939 people.

Topic "Fractions"

Problem 6 (Mongolian). 24 dan of cereals were given to help four poor women. They were an orphan, a childless woman, a widow and a pregnant woman. They were given $\frac{4}{25}, \frac{1}{5}, \frac{7}{25}$ and $\frac{9}{25}$ respectively. The question is, how much grain did each of them get (1 dan = 10 duu, 60 kg, 1 duu = 10 shin)? Answer: orphan –3 dan 8 duu 4 shin ≈ 230.4 kg; childless woman – 4 dan 8 duu ≈ 288 kg; widow– 6 dan 7 duu 2 shin ≈ 403.2 kg; pregnant– 8 dan 6 duu 4 shin ≈ 518.4 kg.

This problem was solved using the calculating devices *sampin and zurhain sambar* (counting board), which were in use until the 50s of the last century. The *sampin* resembled Chinese and Japanese abacus and was six-point (one bone was separated by a septum from the rest). The existence of the sampin, along with a special count of up to ten among the Mongols, confirms the early existence of a mixed number system among the Mongol-speaking peoples: five-decimal. *Zurhain sambar* is a small board about 25 × 40 cm in size, which was coated with sheep's fat, sprinkled with fine sand or dust and wrote on it with a sharpened stick.

Topic "Systems of equations"

In the Middle Ages, the rich mathematical tradition of the Chinese people became available to Mongolian scholars. Obviously, this is why tasks that were solved using the "rule of false position", "the rule of two false positions" penetrated into the people's environment. Similar problems are considered in the VII-VIII books of the Chinese treatise "Mathematics in nine books", where an algorithm for their solution is given.

Problem 7 (Mongolian). There were 49 birds and sheep in the hedge. They have 100 legs in total. How many birds and how many sheep were there in the hedge? Answer: 48 birds, 1 sheep.

The problem is solved using the system of equations

$$\begin{cases} x + y = 49; \\ 4x + 2y = 100; \end{cases}$$

where x – number of sheep, y –number of birds.

Topic "Divisibility. Even and odd numbers"

Problem 8 (Buryat). One horse herder can harness five, group three, or disband two. How many horses can there be in a herd? Answer: $30n$, n = 1, 2, 3, ….

Problem 9 (Mongolian). In the old days, they say, an old man was on a journey with a young traveler, who guarded the camels every night. Once a young man asked an old man: "How can I be if I want to sleep at night?" “You tie our 70 camels to 7 pegs so that an odd number of camels is tied to each peg!” - answered the old man. The young man thought and thought and did not notice at all how dawn was breaking. What is the secret of the old man's advice? Answer: the problem has no solution.

Topic "Arithmetic and Geometric Progressions"

An analysis of the solution of folk problems shows that the Mongol-speaking peoples knew the concepts of the degree of number, arithmetic and geometric progression. Let's take the problem of lamps as an example.

Problem 10 (Mongolian). On the Buddhist seven-step step - *subargan*, in the shape of a pyramid, 381 lamps are placed so that the number of lamps on the steps doubles each time, starting from top to bottom. How many icon lamps are there on the top of the *subargan* and how many on each step? Answer: at the top there are 3 icon lamps, and on the rest of the steps6, 12, 24, 48, 96, 192.

Problems for extracurricular activities

Folklore tasks of different peoples are traditionally used in the organization of extracurricular work with students. Logical problems, game problems, transfusion problems, etc., occupy a prominent place in the mathematical collection of folklore problems of the Mongol-speaking peoples. Let us give examples.

1. Logical tasks

Problem 11 (Buryat). The traveler leads three camels with their luggage. One camel bites the others, the second spits chewing gum at the owner, and the third eats the baggage. How can a traveler lead the camels so that no one is hurt and the luggage is safe? Answer: the traveler must sit on a camel that bites the others, lead a camel that can eat the load, shifting the load onto it, and tie the spitting camel to it.

Problem 12 (Mongolian). Once an old man and an old woman gave their three sons a gold coin and sent them to buy something of value. The eldest son bought a mirror with his gold coin, in which one could see the invisible, the middle son - a flying carpet, and the youngest - a cure for any disease. The eldest son looked in his mirror and saw a sick beauty. The brothers sat down on a flying carpet and flew to her. Then the younger of the brothers cured the beauty with his miraculous medicine. One of the brothers married her. Which brother married a beautiful woman? Answer: the youngest of the brothers married the beauty, who bought medicines for all diseases with a gold coin; according to the folk tradition of the Buryats, he is supposed to protect the calm old age of his parents.

2. Game-problems.

Problem 13 (Mongolian). *Game "Guess who has the ring*." 11 people play, one of whom plays the game, the second guesses, the rest of the participants hide the ring. Guessing: “Guys! Have one of you put this ring on your finger. I will find out which of you has, which hand, which finger and its phalanx it is worn. Let's agree that: a) we will assign numbers from 1 to 9 to each of you; b) the right hand will be numbered 1, and the left hand will be numbered 2; c) fingers, starting from the thumb, will be numbered from 1 to 5; d) phalanges of fingers, starting from the tip, will be numbered from 1 to 3". Then the guesser leaves the room. While he is absent, the presenter assigns numbers to the participants, puts a ring on someone's finger and asks everyone to hide their hands. For example, the presenter puts a ring on the first phalanx of the ring finger of the fifth participant's right hand and invites the guesser to enter the room.

The guesser enters and invites the participants to correctly perform the following calculations: 1) multiply the number of the participant in the game with the ring hidden by 2 and add 1 to the product; 2) multiply the received amount by 5 and add the hand number to the product; 3) multiply the sum by 2 and add 1 to the product; 4) multiply the sum by 5 and add the number of the finger to the product; 5) multiply the sum by 2 and add 1 to the product; 6) multiply the sum by 5 and add the number of the phalanx of the finger to the product. Then the guesser asks the answer.

In this case, the result will be 5796. From the result 5796, the leader subtracts 555 orally and receives the answer 5241. According to this answer, he finds out who the ring was hidden from: 5 - the player's number, 2 - the number of his hand, 4 - the number of the finger, 1 - the number phalanges of the finger.

Task for students. Prove the correctness of the reasoning, denoting with the letter a the player's number, b - the hand number, c - the finger number, d - the phalanx number of the finger.

Solution.

$((((((2a + 1) \times 5) + b) \times 2 + 1) \times 5 + c) + \mathbf{1}) \times 5 + d = 1000a + 100b + 10c + d + 555 = abcd + 555.$

Problem 14 (Buryat). *Game "Guess the number"*. Come up with a number, add it to it. I give you the number 10, add it to the total as well. Divide the resulting number by 2, then subtract the intended number. I guessed how many turned out. It turned out 5, right? What's the secret?

3. Transfusion problems.

In summer, families of cattle breeders have an abundance of dairy products, when they have to pour milk, butter, sour cream from one vessel to another. This is probably why numerous tasks of "transfusion" arose, similar to the tasks of other peoples. Here's one example.

Problem 15 (Mongolian). How should two cattle breeders divide equally 10 ghee if they have vessels for 7 and 3 ghee? (1 ghee - a measure of weight equal to 600 g)

Topic "Indefinite Equations"

A rare problem for indefinite equations was written by the author in the Buryat village of Shibertui from D. Mitypov.

Problem 16 (Buryat). The father ordered his son to buy 100 head of cattle for 5 rubles. At the same time, a horse cost 50 kop., a cow - 10 kop., a sheep - 1 kop. The son fulfilled his father's order. How many horses, cows, sheep did he buy?

Solution. Let's compose a system of two equations with three unknowns:

$$\begin{cases} 50\,x + 10y + z = 500, \\ x + y + z = 100, \end{cases}$$

where x – number of horses, y – number of cows, z – the number of sheep (all natural numbers). Subtract the second equation from the first and express y in terms of x, we get y= (400- – $49x$) : 9. The problem has only one solution: $x = \mathbf{1}$, $y = 39$, $z = 60$. Answer: 1 horse, 39 cows, 60 sheep.

Problem 17 (Mongolian). For 31 heads of foals, calves, camels were given 67 ghee feed. Of these, for one foal - 1 ghee, for one calf - 2 ghee, for one camel - 3 ghee. How many foals, calves, camels get food? Answer:3 foals, 20 calves, 8 camels.

The problems mentioned are similar to the well-known Chinese problem of buying birds.

Zhang Qiujian's problem (V century). 1 rooster costs 5 qian*, 1 chicken costs 3 qian, 3 chickens cost 1 qian. In total, 100 birds were bought for 100 qiens. The question is, how many cocks, chickens, and chickens were there? (Qian- Chinese currency)

It is known that scientists from different countries have dealt with systems of equations in which the number of unknowns exceeds the number of equations. This makes it possible to inform students of interesting information from the history of mathematics of other peoples: in honor of the Alexandrian mathematician Diophantus (III century), such equations were called Diophantine. Scientists of India (V-XII centuries) were engaged in solving indefinite equations in integers. Such problems are considered in the VII-VIII books of the Chinese treatise "Mathematics in nine books", they are solved by the "excess-lack" method. In particular, the latter problems are analogous to Zhang Qiujian's well-known Chinese problem of buying birds:

Zhang Qiujian's problem (V century). 1 rooster costs 5 qian*, 1 chicken costs 3 qian, 3 chickens cost 1 qian. In total, 100 birds were bought for 100 qiens. The question is, how many cocks, chickens, and chickens were there? (Qian - Chinese currency)

The examples considered show that the Mongol-speaking peoples had a large supply of original mathematical problems, for the solution of which a sharp mind, resourcefulness, and ingenuity were required. From the content of the folklore tasks it becomes clear that they were of a practical nature, were put forward by the very life of the nomads, their way of life [4], [5].

In the XII-XIII century, the ethnomathematics of the Mongol-speaking peoples of the *zurkhai* reached significant development. Researches of scientists have shown that at that time it was closely associated with the mathematics of India, China, Tibet and the countries of Central Asia, this connection was especially strengthened during the spread of Buddhism and the existence of a single state in the Middle Ages. The fact of mutual enrichment of the mathematical culture of the peoples of Central Asia is confirmed by folk problems created in different eras, in different places of residence of peoples.

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童话“老人与狼”的符号（摘自“斯拉夫神话的符号历史”）
SYMBOLS OF THE FAIRY TALE "THE OLD MAN AND THE WOLF" (from the "History of the symbols of Slavic mythology")

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该报告是斯拉夫神话象征意义领域研究工作的一部分。 作者在过去几年的各种会议上反复提出了有关该主题的进展[Zaporozhets 2020 a），b），c），d），e）]。 今天，我们将继续根据A.N. 托尔斯泰[Tolstoy 1992]。 这个童话是童话“森林边缘的小屋”的一个版本，作者在2020年的一次会议上认为这是个故事[Zaporozhets 2020]。 在我们的报告中，我们将对两个童话版本进行比较分析，并揭示角色象征的新细节。 这个故事的版本使作者对附加信息感兴趣，这将缺失的元素引入了神话学的研究领域。

关键字。 儿童的民间传说，童话的象征意义，神话

Abstract. *This report is part of a research work in the field of symbolism of Slavic mythology. Developments on this topic were repeatedly presented by the author at various conferences of past years [Zaporozhets 2020 a), b), c), d), e)]. Today we will continue to study the symbols of the figurative mythological structure based on the fairy tale "The Old Man and the Wolf" in the processing of A.N. Tolstoy [Tolstoy 1992]. This fairy tale is a version of the fairy tale "Hut on the forest edge", which the author considered at a conference in 2020 [Zaporozhets 2020)]. In our report, we will carry out a comparative analysis of two versions of a fairy tale, and reveal new details of the characters' symbolism. The version of the tale interested the author with additional information, which introduced the missing elements into the studied area of mythology.*

Keywords. *Children's folklore, symbolism of fairy tales, mythology.*

In previous reports at conferences, the author has repeatedly considered the figurative structures involved in different genres of Russian folklore from the point of view of their symbolic orientation. In this talk we will consider the symbols of the fairy tale "The Old Man and the Wolf". Let's conduct a comparative analysis of two versions of one fairy tale plot. Let's trace - what interesting things the second option added to us.

Summary of the first option. In a hut on the edge of the forest lived: six Sheep, the seventh Stallion, Grandmother and Grandfather, Boy and Girl. Wolf got into the habit of them. ... Ate Sheep, Stallion .... The Wolf came for the Boy and the Girl ... Grandfather killed the Wolf and the four of them began to live: Grandmother and Grandfather, Boy and Girl. (The storyteller presented the tale as a game that teaches children to count (NMI)).

Summary of the tale "The Old Man and the Wolf".

The Old Man and the Old Woman had a Boy and a Girl, a Cockerel and a Hen, five Sheep, and the sixth a Stallion. Boy in boots, Girl in earrings. The hungry Wolf got into the habit of going to the hut ... The old man gave it to him: first the Rooster and the Hen, then the Wolf ate the Sheep, then the Stallion. And then the Old Man felt sorry to give the Boy and the Girl, he killed the Wolf with a poker, from whose belly everyone who had been eaten jumped out.

It is always interesting to consider many variants of one plot, since the variable form is not always a simple fantasy of the narrator, and it often retains such nuances that can explain something previously incomprehensible, which remained "behind the scenes" in other plot versions. There are several points in this variant.

Firstly: this is the number of characters. There are not 12 of them, as in the previous version, but 13. Thirteenth Wolf.

Secondly: location of characters:

1. Cockerel. 2. Chicken. 3-7. five Sheep. 8.the sixth Stallion.

9. Old man. 10. The old lady. 11. The boy in boots.

12. Girl in earrings.

Although, if the characters of the Rooster and the Hen are considered as symbols of the same period of time (as formed in the decoding of other fairy tales) - the month of January, then the scheme will be similar to the first version of the tale:

1. Cock and Hen - January, 2-6. Five Sheep - from February to June,

7. Sixth Stallion - July, 8. Old Man - August,

9. Old woman - September, 10. Boy - October,

11. Girl - November, 12. Wolf - December.

Thirdly: at the end of the tale, the Wolf's belly burst, and everyone he ate jumped out of it (in contrast to the first option). Such an ending, with the restoration and revitalization of characters, is typical for many genres of folklore. For example, the revival of the "She-goat" in theatrical action, during the "driving the She-goat" before the New Year by the mummers: "And you, She-goat, rise, / Rejoice, / Our Lord / Bow! ..." (GES), in other fairy tales (for example, "The She-goat and the Wolf") ... .

Is such variability in this tale accidental? Let's take a deeper look.

Firstly, as in the previous version, the Hut in the fairy tale is divided into:

a) the "yard" in which the animals are and

b) strictly - a hut.

The author has repeatedly seen such buildings with a covered courtyard next to the corridor leading to the hut on expeditions in different regions of Russia. (For example, this form of buildings is well preserved in the Vladimir region ...). But this is not the main thing, but the main thing is that the number of characters living in the hut (unlike the previous version) is twelve. This already indicates a year cycle of twelve months, with an increase (as in the previous version) of the Sheep symbol. True, there are not six Sheep, but five (most likely, this is due to the addition of the Rooster and Hen characters). This annual cycle is more homogeneous in its composition than the previous version: domestic animals and people (without the forest animal - the Wolf). But! As in the first version, the clear dominance of the Sheep symbol indicates the layering of the later New Year celebration in the spring, at the moment the Sun enters the constellation Aries, on the more ancient New Year, which was celebrated at the time of the winter (or summer?) Solstice. The only difference is that:

a) in this version, the cycle begins with the Rooster and the Hen, as we found out in previous reports [Zaporozhets 2020], the symbols of midnight (or rather, from midnight onward) and the winter solstice (starting from the solstice onward). You can also clarify that if we take into account the symbolism of the Rooster and the Hen as one month - January, then the beginning of the countdown of homogeneous symbols - Sheep from February, points us to the point of the ancient winter solstice, and the celebration of the New Year, when the Sun entered the constellation Aquarius (two with half a thousand years ago). In the diagram, the connection of the ancient points of the Winter and Summer Solstice is marked with a dashed line;

b) in the previous version, the beginning of the count also goes from the midnight point, but there the symbols are “six Sheep”. The characters of the Sheep (in the first version) symbolize six months of the first half of the annual cycle: from the point of the winter solstice to the summer solstice).

What, then, is the Wolf? The wolf as a forest character is a representative of the world of death, night (wolves go out in search of prey at night, starting at dusk) and the culmination of winter, the time before the winter solstice, when they are especially active [Nekrylova 1991]. In deciphering the symbols of fabulous and non-fabulous folklore, we found out that the Wolf stands for the month of December. The heaviest month of the year, when time moves to the "darkest climax of the year", to the point of the winter solstice, when the longest nights and the shortest days come. Often, the last month before the solstice (like all the "last" in traditional culture) is designated as "extreme" or simply "edge". That is why in lullabies that perform a protective function for the baby during the night (a time isomorphic to winter - sleep and death of nature), it is sung: "... Do not lie down on the edge/A gray wolf will come/And drag it into the woods/... And bury it in a hole/You will not see the mother "(MNV). The wolf, in the second version, is distinguished not only by its natural habitat - the forest, and comes to eat someone, but also by a numerical opposition: one against twelve. If in the previous version it is highlighted only by the habitat and the negative symbol of the heaviest month of the year - the time before the solstice, after which the end of the old year comes, then here it is generally isolated even by the numerical load. This indicates an echo of such fairy-tale plots as - "the struggle of animals and beasts."

Secondly, in the variant under consideration, the symbolic "logic" is interestingly traced.

a) The beginning of the counting of the annual circle goes from small domestic birds and animals to large ones, that is, to increase: Rooster-Chicken, Sheep, Stallion. This indicates a gradual increase in the seasons, gaining solar power of heat and light.

b) Then, on the contrary, the opposite is described, a decrease, but already of people: from Grandfather, Grandmother to the Boy and the Girl, which is strenuously emphasized by the end of the enumeration of the characters: "Boy in boots, Girl in earrings."

Also:

a) The dominant of domestic birds and animals in the first half of the year - indicates a gradual long "exit" from the space-time of Winter, undead, the death of nature (which will also occur later in fairy tales) into the space-time of warmth, light, life, Summer. And, although domestic animals are described here (located in the space of the house), but still - they are representatives of the "otherworld" time, when there is still no new harvest! This is probably why a very tenacious and harsh prohibition, purely pagan, has survived, but it has to be carried out (especially by women) to this day, despite the constant exhortations of the priests, not to eat the fruits of the new harvest until the Savior, since according to legend, if this prohibition is violated, then on Savior "in the next world", they will not give treats (fruits of the new harvest) to deceased relatives (especially emphasized by the population - they will not give an apple to dead children in the "next world") [Zaporozhets 2020 d)]. Therefore, such a prohibition is especially jealously observed by women. It turns out that a person before the Savior - (the feast of the Savior is a point tied to the ancient summer solstice, when the Sun entered the constellation Leo) is in the "world of spirits"! And, if at this time he ate the unconsecrated fruits of the new harvest, then he, thus, "connected" to the world of the dead, which in itself is very dangerous and can lead to the death of such a person [Zaporozhets 2019]. (This fact is confirmed in other myths, which we hope to consider in the reports at the next conferences).

b) And the second half of the circle is characterized mainly by people, since even though the sun has turned for winter, summer is for the heat, and the new harvest is already ripe. (We will also trace the analogy of such an arrangement of characters later, in deciphering other fairy-tale plots). This is probably also why the people associate the holiday of the Savior with salvation from starvation.

In the tale, the location of paired characters by gender is also clearly observed, the male symbol is female: Rooster - Hen, Grandfather - Grandmother, Boy - Girl.

Thirdly, in this version, the revival of "eaten" animals indicates a constant revival of the annual solar cycle. We can also assume that the symbol of Kocherga, with which Grandfather tore the Wolf's belly, is also not accidental. Klyoshechka-kocherezhechka is present not only in the magical actions of stopping a thunderstorm and any bad weather (together with a stove shovel, etc. ...). A poker, as an object that is in direct contact with the Stove, fire, where Bread is baked (holy food [Zaporozhets 2021]), the rite of "baking the baby" is held [Zaporozhets 2020 e)], etc., etc., similar in shape on the hook, is mentioned as the main attribute in the theatrical action of the mummers - in the Christmas carols, which were held before the New Year and which began with the words "Already you, Klyoshechka-Kocherezhechka/Where have you been? ..." [Zaporozhets 2020 a)]. Caroling around the courtyards (probably - initially with a decorated staff, as during matchmaking (which has survived in Ukraine to this day) (VBN)) and addressing Klyoshechka-Kocherezhechka took place just before the winter solstice point, in December! In carols, as in fairy tales, there is also a listing of all the symbol months. And, from here, the strictest prohibition on counting becomes understandable: family members, especially children in the family, any group of people, any living beings, etc.…. Because according to the calendar tradition - after recounting the months of the year (in fact, the memorial ceremony for the past), the old year ends, equally - it dies, and the time of the New Year comes! By the same principle, it is also not customary to give watches, calendars, etc.….

Let us emphasize in our report that there is very little absolute binding of symbols to any points in time, which introduces additional difficulties in deciphering the myth. This one is related:

a) with the movement of the New Year celebration to different points of the solstice and solstice, therefore the same symbol could denote the point of the winter solstice, and later - the point of the spring solstice ...;

b) with mixing and layering of different calendar structures on top of each other (calendar of birds, calendar of animals ...).

So, we see that additional information on symbolism is not at all a simple fantasy of the performer or processor of the tale. This is why this version of the tale became interesting for the author.

Based on the decrypted data, we see that:

1. The ancient celebration of the New Year was in winter, at the point of the winter solstice. This indicates that in more ancient times people lived in a warmer climate, and it was important for them to increase the daylight hours, which begins after the sun passed the winter solstice point, and not an increase in heat. The increase in heat after the point of the spring solstice became relevant in connection with some kind of sharp cooling of the climate. Such periodic cold snaps are characteristic of the Holocene time, when the glacier periodically covered large areas of the continent (Comment № 1).

2. Also, this version of the fairy tale plot confirms the previously expressed thought [Zaporozhets d)] that in ancient times the people had many different calendar systems: the calendar of animals, the calendar of beast, birds, plants, fish, etc., echoes, etc. confirmation of which we constantly find in fairy tales.

3. The layout of the fairytale symbols clearly shows the division of the Year into six months vertically and horizontally. But!

a) Vertical division dominates! Winter and summer solstice can be traced more clearly! Another thing is that, as an option, the listing of pets ends (the largest is the Stallion) before Augustus (the constellation of Cancer)! Before the point of the ***ancient*** summer solstice, when the Sun entered the sign of Leo! And Grandfather - as the most senior symbol - "opens" the account of the second half of the year, when the Solar power begins to gradually decline. Moreover, the description of the fairy tale symbols begins from the very beginning with the Old Man and the Old Woman! And most importantly: the Wolf's eating of pets ends with a Stallion! The Wolf did not eat people! And this is also not accidental, since in this case an even more ancient myth with the main point of the Solstice - Summer, is highlighted! Then we get an annual circle with the point of the summer solstice, with a countdown from the constellation Leo:

1. Old man, 2. Old woman, 3. Boy, 4. Girl,

5. Cockerel, 6. Hen, 7-11. five Sheep, 12. Stallion!

Or, alternatively:

1. Old man - August, 2. Old woman - September,

3. Boy - October, 4. Girl - November,

5. Wolf - December, 6. Cock and Hen - January,

7-11. five Sheep - February-June, 12. Stallion - July!

That's it. The circle of the year is over.

Here are some interesting patterns preserved in the symbolism of the myth! An indication of the celebration of the New Year at the Summer Solstice at some point in historical time. At what time the Summer Solstice point dominated - the question remains open. But, more than once we will come across this mention in the deciphering of mythological structures.

b) As for dividing the annual circle horizontally, I must say that the Autumn Solstice in the fairy tale is generally not visible at all, and the accent point of Aries speaks of a very late tradition. The sun entered the sign of Aries at the spring solstice in a relatively recent time, and about 2.5 thousand years ago it entered the sign of Taurus.

So, in this study, we identified echoes of ***FIVE calendar systems:***

1. The Year Circle with the celebration of the New Year at the time of the ***ancient Summer*** Solstice - the entry of the Sun into the constellation ***Leo***, the point of dividing the year into symbols of animals and people;

2. Year Circle celebrating the New Year at the time of the ***modern Summer*** Solstice - the entry of the Sun into the constellation of ***Cancer***, dividing the Year into 2 semesters: half a year - six Sheep and half a year - other characters;

3. The Year Circle with the celebration of the New Year at the time of the ***modern Winter*** Solstice - the entry of the Sun into the constellation ***Capricorn***, starting from domestic birds or animals (before the entry of the Sun into the constellation of Cancer);

4. The Year Circle with the celebration of the New Year at the moment of the ***modern Spring*** Solstice - the entry of the Sun into the constellation ***Aries***, the dominant symbol of the Sheeps of the first half of the year;

5. Year Circle with the celebration of the New Year at the time of the ***ancient Winter*** Solstice - the entry of the Sun into the constellation of ***Aquarius***, the beginning of the countdown of the homogeneous symbol of the Sheeps from February.

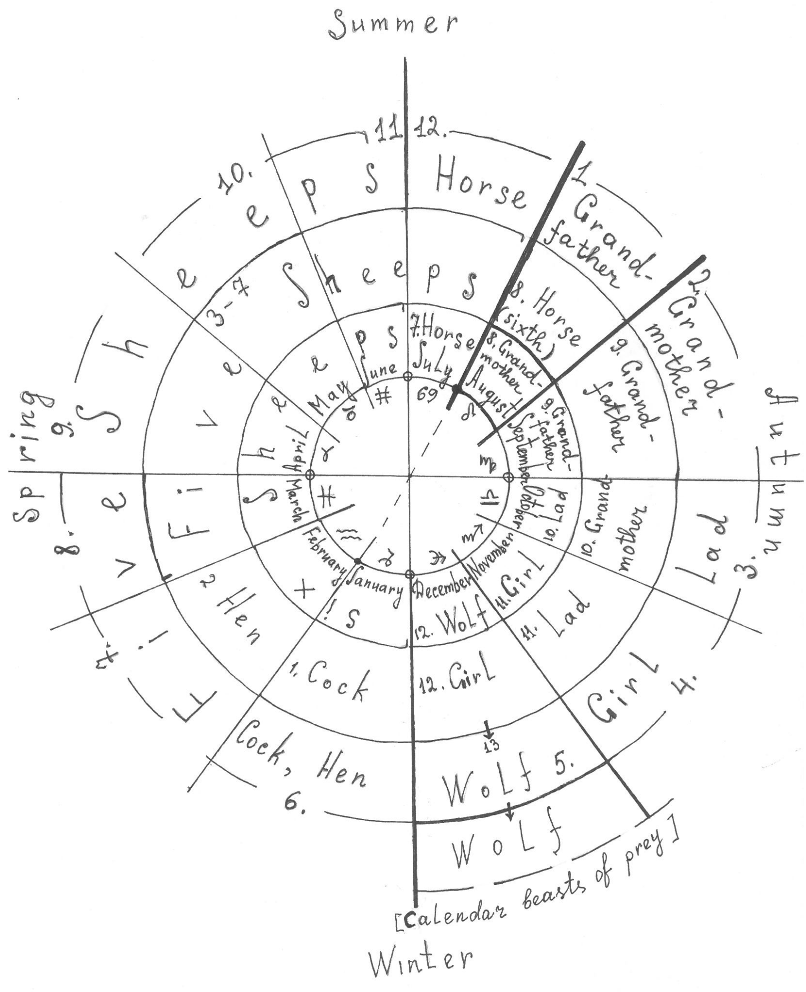
Of all the considered points of the solstice, the following are most clearly observed:

a) the ***modern winter*** solstice, in front of it is the aggressive symbol of the ***Wolf***, the Sun enters the constellation ***Capricorn*** and

b) the *ancient summer* solstice, after it - the symbols of the *Old Man* and the Old Woman, the Sun enters the constellation *Leo*.

Thus, based on the small or large preservation of the symbolism, we see that the celebration of the New Year at the time of the Summer Solstice is more ancient than the celebration of the New Year at the Winter Solstice. Even later, the Spring Festival of the New Year, which we know as Shrovetide, appeared (and even later, Peter 1 moved the celebration of the New Year back to the Winter Solstice. This is not recorded in the mythological structure).

All of the above facts indicate that the counting of time according to the Winter and Summer solstice is longer in historical time and more ancient. The points of the summer and winter solstices were the beginning of the countdown of the new time, the New Year! We will constantly observe echoes of this in our next published studies. And the celebration of the New Year at the spring solstice is a late layering, which is also confirmed by the dominance of the sign of Aries, and not Taurus.



Comments.

1. Holocene (from the Greek holos - all and kainos - new) (post-glacial epoch) is the modern geological era, constituting the last, unfinished segment of the Quaternary (Anthropogenic) period of geological history, the corresponding sediments. The beginning of the Holocene coincides with the end of the last glacial glaciation of northern Europe (SED).

List of performers.

VBN – Vintonyak Bogdan Nikolaevich, born 1957. Construction worker. Originally from the Ivano-Frankivsk region, Bogorodchansky district, the village of Rakovets. Working in Moscow. Recorded by V.V. Zaporozhets in Moscow in 1995.

GES – Gaiduk Evdokiya Stepanovna, born in 1924 (nee Basovich), local. Recorded by V.V. Zaporozhets in the village of Dinskaya, Krasnodar region in 2004.

MNV – Morozova Natalia Vladimirovna, born in 1926, local. Peasant woman. Recorded by V.V. Zaporozhets in the Vladimir region, Sudogodsky district, the village of Gorki in 1998.

NMI – Nazarova Maria Ivanovna, born in 1930, originally from the Moscow region, in Moscow in transit. Recorded by V.V. Zaporozhets in Moscow in 2005 (she knows the tale from her grandmother).

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